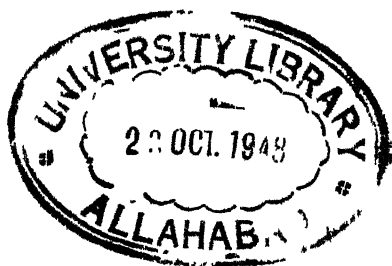


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A Cultural History of Education



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EDUCATION OF CHARLES THE FIFTH
BY BARON HENDRIK LEYS (1861)

COURTESY, LLOPOLD GOLDMUNTZ
NEW YORK CITY

THE GREAT TRADITION IN ACTION

THIS famous painting dramatizes some of the educational traditions that came from Europe to America and still live on in much of our thinking and action.

The scene portrays the cathedral at Ghent where several clergymen represent the all-embracing interest of the church in education.

Attended by his mother and by members of the court in the gallery, the young prince, who became Emperor Charles V of the Holy Roman Empire in 1519, receives the education bestowed by an aristocratic state upon the privileged few of birth, wealth, or intellect.

The classical character of the curriculum is symbolized by Erasmus, the foremost humanist of his age, who stands at the lectern on the left. Instructional methods are typified by the active lecturing of the teacher and the passive listening of the student.

When religious, aristocratic, and humanistic traditions confront secularism, democracy, and science, educators must make important choices among their conflicting traditions

A CULTURAL HISTORY OF EDUCATION

REASSESSING OUR EDUCATIONAL TRADITIONS

BY
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COLUMBIA UNIVERSITY

FIRST EDITION

Second Impression

McGRAW-HILL BOOK COMPANY, INC.

New York and London

1947

A CULTURAL HISTORY OF EDUCATION

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Preface

DURING the war years, it became increasingly clear that a new approach to the educational problems of the world was more urgent than ever before and that Americans should reassess the strengths and weaknesses of their own educational traditions. The author believes that a new study of the history of culture and education is an important means to that end. This book is designed principally for those who are preparing to enter the educational profession and for those who have had experience and wish to reevaluate their efforts in the light of a new interpretation of education in history. It may also be of interest to many others who are concerned with the future of American public education.

A Cultural History of Education is not confined to the instruction that goes on in schools but tries to show the close relationship between society, schools, and other educational agencies. It is based upon the belief that education is affected by the dominating institutions and beliefs of a culture and that education in turn affects the culture. The term "culture" is used here to refer to the whole matrix of political, economic, social, and religious institutions as well as to the beliefs, ideas, and ideals that guide a people in their private and public endeavors. The author's argument is that in order to reassess our present educational program we must understand and reevaluate the cultural as well as the educational traditions which make us what we are.

The aim in writing this book has not been so much to emphasize new research in the history of education as to aid in the revitalizing of the teaching of the history of education and improving the use of the historical approach to educational problems. The attempt has been made to interpret and bring together in one place for the benefit of educational workers some of the outlooks and scholarship of the social sciences as well as materials from philosophy, psychology, and educational writers of various kinds. The book has grown out of the author's experience during the last 15 years, principally at Teachers College, Columbia University, where he has had the opportunity not only to teach courses in the history of education but also courses called the "Foundations of Education."

Since the early 1930's growing numbers of educational workers at Teachers College and elsewhere have come to the belief that a genuine understanding of the role of education in society will be enhanced by bringing to bear upon education in a unified way the results of the sepa-

rate disciplines of history, government, economics, sociology, anthropology, psychology, and philosophy. This book is the author's effort to apply such a "foundational" approach to the history of education as well as to make the discipline of history contribute to the larger foundational task. The author's indebtedness to his colleagues in the Department of Social and Philosophical Foundations at Teachers College is apparent throughout. Among those who have long provided valuable insights and professional stimulations are Edward H. Reisner, R. Bruce Raup, Kenneth D. Benne, Donald G. Tewksbury, George S. Counts, John L. Childs, William H. Kilpatrick, Harold Rugg, I. L. Kandel, and Merle Curti (now of the University of Wisconsin). In great part, the merits of the book may be attributed to the experience of working closely with these and other colleagues; its shortcomings are, of course, the author's own.

Although the book is designed primarily for use in courses in the history of education, it is also designed to provide a background for other types of work. For example, in courses in elementary, secondary, or higher education, students may gain from it the perspective of history upon those specific grades or levels of education. Similarly, students in courses in the philosophy of education, principles of education, curriculum, administration, and the subject-matter fields may here find easily available historical materials that are appropriate to their own specialized needs and yet related to the larger developments of education.

It may be wondered why a new history of education does not give more attention to the non-European cultures so important in world affairs today. If it had been possible to include within a single volume a discussion of China and other Eastern cultures, South America, Africa, and other parts of the world, this would have been done. However, although the author is fully cognizant of the importance of these areas to American teachers and to American education, he believes that *in the past* these cultures have not had so direct or continuing an influence upon American education as have the European cultures.

The matter of reassessing our educational traditions is more necessary than ever before, if for no other reason than to realize how much we have neglected the rest of the world in our educational outlooks and organization. We must arrive at greater understanding of the other peoples of the world, but the author believes that this is a task for comparative and international studies beyond the scope of a single book on the history of education. If this book can aid in the process of reevaluating the educational and cultural traditions that have affected us most directly, in order to determine in what respects they have contributed or failed to contribute to a democratic culture and education in America, it will have served its purpose. We may then be in a better position to

use a revitalized conception of democratic education to act as a guide-post for the future of American education and for a world in desperate need of cooperative action.

The author would like to acknowledge here the yeoman service rendered by two former secretaries in preparing the manuscript for the publisher, Mrs. Barbara Ralston and Mrs. Jere McClain.

Likewise he is indebted to *The New York Times* for permission to quote the excerpts on pages 566 and 575 of the text, and to *Asia and the Americas* for the excerpt on page 569, which was taken from an article by Professor George S. Counts. In general, quotations have been kept to a minimum throughout the book in order to preserve the continuity of presentation. For documentation and supporting evidence the reader is referred to the list of selected references.

R. FREEMAN BUTTS.

New York, N. Y.,
December, 1946.

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INTRODUCTION

As in every critical period, the American people are searching again for the answers to their persistent problems. When persons holding different points of view come into conflict concerning the solution of these problems, each person is likely to appeal to the past for support of his own position. Whenever people are discussing a proposed plan of action, one of their first tasks is to analyze the problem situation that confronts them. This means a study of history in a real sense, for any present situation is what it is as a result of the past. An adequate analysis of the present with a view to the future requires a study of the past. Indeed, any decision in the realm of social affairs depends in the last analysis upon an interpretation of history. This is as true in education as in other social, economic, political, and intellectual activities. Therefore, it behooves the American people to reexamine and reevaluate what our inherited ideas mean for education today.

The war and its aftermath make more urgent than ever the task of reassessing our educational institutions and traditions. War always accelerates social and educational change, and postwar periods usually see revolts against and disruptions of the old, inherited patterns. Therefore, it is the task of all educators to see that we do not simply seek the past with longing or clutch at every new fad. *Now* is the time to reevaluate our educational aims, curriculum, and organization with a view to judging what was good and what was bad in the past and what will be good in the years to come.

The historical study of society and of education assumes that we can solve our present-day problems more intelligently if we know something about the development of the major directing forces of our society and how they have created the unsolved problems in education which now confront us. The way we set out to solve our educational problems depends in large part upon our underlying assumptions. In each age, conflicts have arisen between those who wish to hold to traditional conceptions handed down from the past and those who wish to change more rapidly when they feel change is necessary. Traditionalists in any age are likely to insist that new problems can be solved by looking to the past for the permanent answers. Progressives in any age are likely to insist that new problems demand new answers in the light of changing social and intellectual conditions. Controversies arise when these opposing points of view come into conflict over proposed plans of action.

The study of history by itself cannot solve our present problems, but it can help us to solve our problems more intelligently. Indeed, it can help us to see what the important problems are. Our task is to see where our problems came from, how they have been solved in the past, and whether or not the former solutions are appropriate to our own society. History can do at least two things: It can show what historical ingredients have gone into our present practices and why problems arise when inherited traditions confront new conditions and new demands; and it can show how other peoples in other times have solved similar (but not identical) problems. Each age should reinterpret its own education in the light of its social and cultural needs. It is more than ever urgent that we in America proceed now to that task.

As to the general organization of the book, a basically chronological structure has been retained, with divisions by chapters according to commonly accepted "periods" of history. This was done partly because of the familiarity of these periods and partly because of the conviction that the chronological sequence of events gives one a better perspective and understanding. In other respects, the author believes that the book plows new ground in its organization within the chapters.

Each chapter is divided into sections representing the persistent problems that education encounters in any period of history. First the cultural setting of education is described for each historical period as revealed by the dominant institutions and beliefs that have influenced education. Then an effort is made to describe how education has responded to these cultural influences and in turn has affected the life of the times. In order to provide a guide to the reader, an illustration of the pattern used in each historical period follows, along with examples of the kinds of problems that are raised under the various headings.

PATTERN FOR EACH HISTORICAL PERIOD

The Cultural Setting of Education

Education is viewed as integrally related with the culture of each period. To understand the education of any particular time or place one must understand the culture in which it operates. The term "culture" is used in its anthropological meaning rather than in its more restricted literary or artistic sense. It refers to the whole way of life shared by the members of a society and includes the many aspects of life that are listed in the following topics.

The Institutions Men Lived By

The major institutions are described for each chronological period: how they developed, changed, and affected each other; and how they helped to determine the kind of education that was devised.

Political Institutions

What happens to education when the state is predominantly monarchic, aristocratic, democratic, nationalistic, liberal, fascist, communist.

Economic Institutions

What happens to education when a society is predominantly agricultural, feudal, commercial, capitalistic, individualistic, industrial, collective.

Social Institutions

What happens to education when society is marked by strong family or tribal groups, class distinctions, urban life, the middle class, organized labor, heterogeneous racial or ethnic groups.

Religious Institutions

What happens to education when a society is dominated by one church or is divided by many.

The Ideas Men Lived By

Underlying the institutional forms of life in a culture are guiding beliefs and conceptions concerning the origin, capabilities, and destiny of man. In a rapidly changing culture the change in beliefs often lags behind the change in institutions; except for purposes of discussion the two cannot be separated. The kind of education found in any culture is determined in part by such considerations as the following:

Relation of Man to Nature

Belief in a dualism between supernatural and natural affairs as opposed to belief in the essential continuity of man and nature.

Human Nature

Conflicting beliefs concerning how human nature and personality have their origin and are developed.

Learning and Intelligence

Conflicting conceptions of human intelligence, reason, and intellect; conflicting conceptions of the learning process.

Social Role of the Arts and Sciences

One of the most characteristic features of human culture is the development of organized bodies of knowledge as tools for maintaining and improving life, and one of the most distinctive ways in which cultures differ is in their conception of knowledge and the social role they assign to it. The status of organized knowledge has a direct bearing upon the kind of education that is instituted: the stage of development in language and the means of communication; the development of the various bodies of organized knowledge and the way they entered the curriculum of schools and higher institutions as subject-matter fields; the status and relationship of the liberal arts, fine arts, and practical arts; how the development of tools and technological arts affected education; and the problem of the patronage of the arts and sciences in different cultures.

The Role of Education in Culture

In the foregoing the emphasis is upon the way culture affects education; in the following the emphasis is upon the way education operates in the culture.

Organization and Control of Educational Institutions

Control and Support of Schools

How and why specific educational institutions were organized into elementary, secondary, and higher levels; who controlled these educational institutions and for what purposes; problems of secular control versus religious control; centralized control versus decentralized control; growth of the public school idea; forms of support.

Aristocratic versus Democratic Elements in Education

Who was educated and how selection was made; how educational opportunity was restricted or extended to various groups in the population.

Status and Role of the Teaching Profession

Emergence of a profession of teaching; from what social groups the teachers derived their ideals; the qualifications and kinds of preparation for teaching; the rise of teachers' organizations.

Nonschool Agencies of Education

In some ways a culture educates more effectively than do schools and colleges, and therefore account is taken of the organized means whereby a culture educates people outside of schools, for example, the arts, apprenticeship, scientific and philanthropic societies, recreation, adult education, and agencies of communication.

Educational Aims, Curriculum, and Methods

Aims, curriculum, and methods of schools are all treated under one heading because they are so closely linked that one almost inevitably impinges upon the others. This section usually gives special treatment to elementary education, secondary education, and higher education.

Aims

The effort is made to show how such aims as the following developed out of the various cultures and how they in turn affected the culture: to fit the individual into his culture; to pass on the heritage; to make good citizens for the state; to achieve salvation for the soul; to develop character; to train the intellect; to develop the whole personality; to prepare for earning a living; to develop the individual's capacities; to develop critical thinking; to develop social responsibility; and to aid in social change.

Curriculum

The effort is made to trace the major changes in curriculum patterns and to indicate the reasons for such changes: what was added in each age to the curriculum, and what was especially emphasized; conflicting conceptions and persistent problems of the curriculum.

Methods

Persistent problems of indoctrination, discipline, drill, freedom, interest, individual differences, evaluation, and guidance.

Educational Theory and Philosophy

The contributions of some of the great figures in education and how their ideas have affected education in the past and the present; emphasis is upon the continuing influence of these ideas upon present practice.

Each chapter attempts to give a rounded picture for each period, but more important is the attempt to show the meaning of each society for America and how we may profit by understanding the traditions that live

on in us in the ways we act and think and believe. As different elements in our traditions come into conflict with one another, we are faced with present-day contradictions and problems to solve. Our tradition is not all of one piece, and therefore we must select and choose those elements that are pertinent and appropriate to the kind of culture we wish to see passed on to future generations. That culture in the author's view is, in a word, democracy.

In some chapters there are deviations from this pattern, but in general it is adhered to as an aid to the reader in finding his way through the study. It is hoped, too, that a reader who is primarily interested in one aspect of educational history may more easily follow the consecutive story of his specialty, for example, the control of education or the development of elementary or secondary education from earliest times to the present. The intention has been to preserve the values of a chronological perspective and at the same time achieve some of the values of a "problem" approach by fitting the story into a framework of persistent problems.

PART I

EUROPEAN ORIGINS OF OUR EDUCATIONAL TRADITIONS

CHAPTER I

PRIMITIVE AND ANCIENT TIMES

(Before 1000 B.C.)

One of the best ways to illuminate the study of modern society and education is to see our times in the perspective of the long development of human culture. Geologists, archeologists, and anthropologists assure us that man in some form has existed upon this planet for a half million to a million years.

Human culture appeared as men were able to pass on what they had learned to the younger generations. For the countless centuries when men did not devise ways to improve their tools or their conditions of living, culture was relatively static. When men first found that they could hunt better by using rough stones to hit animals or throw at them rather than using their bare hands, culture appeared. When they taught each other and their children to use such implements, education began. When men found that they could improve their hunting or fighting by polishing and sharpening stones to make knives and arrowheads, human culture took an enormous stride forward, and the Old Stone (Paleolithic) Age began to give way to the New Stone (Neolithic) Age. Then, gradually, man began to improve his weapons and tools, eventually using fire to make harder weapons out of copper, bronze, and, finally, iron.

We can draw up a rough estimate of the culture of early man from the remains of the weapons that have been found as well as from other evidence. For example, some 8,000 years ago man began to construct dwellings of various kinds for protection against the elements and invaders; he began to make containers out of clay to hold food and water; he began to domesticate animals and to plant crops to provide a more stable food supply; and he began to make clothes from animal skins by the use of needles and thread and, eventually, by spinning. Likewise, man began to use gestures, signs, and symbols that eventually became words for the conveying of ideas, and he made drawings on walls and pottery to convey ideas and to express his feelings about the life he saw and lived. When man began to *control* his environment for his own purposes rather than merely submitting to it, human culture began to

take a form that is somewhat familiar to us. If man had forgotten what he had learned, he would not have been human. In other words, all human beings today stand in debt to the nameless millions of men over thousands of centuries who gradually learned to control the environment and to pass on what they had learned to the younger generations of men, thus helping to make them human. In prehistoric times culture and education were of a piece.

THE INSTITUTIONS MEN LIVED BY

Undifferentiated Social Institutions of Primitive Culture (before 6000 B.C.)

In the process of beginning to exert control over their environment, primitive men organized themselves into working groups for the more adequate achievement of this purpose. Today we give the name "social institution" to such organized groups. At some time in the long history of man prior to 7,000 or 8,000 years ago, individual men and individual families began to live together, work together, and fight together for common purposes. Family and tribal groupings based upon kinship were probably the first kinds of social institutions. Men found that living together increased the security, protection, and welfare of all the individuals in the group. They found also that some sort of rules had to be made to guide group living and to define the individual's relationship to the group's activities. Thus, customs, habits, and folkways were developed in order to fix the obligations and duties of various individuals in the group. Primitive man apparently sensed that the welfare of the group depended upon the performance by each individual of his obligations, and pressure was therefore put upon the members of a tribe to live up to the folkways of the tribe.

Rule of the folkways. Modern persons are impressed by the extent to which the fixed folkways of a primitive tribe controlled the conduct of the tribal members. They are impressed, too, with the great variety of practice that appeared among different tribes of men in different parts of the world. Despite the differences that prevailed, however, it remains true that, within a single tribe, folkways were relatively stable and fixed over long periods of time. They changed upon contact with different tribes or when conditions of life reached a crisis at which change was necessary, but the apparent intent and effort of primitive tribes was to see that the tribal folkways were passed on intact.

Quite explicit rules were formulated concerning the important activities of life: the duties of children toward their parents; the relations between the sexes; attitudes toward property; loyalty to the elders and leaders; division of the spoils of the hunt; the duties of warfare both as

to victor and vanquished; taboos against certain kinds of food; the accepted interpretations of natural phenomena; and participation in religious rites and ceremonials. In modern times such a listing of social activities could be classified into distinct social institutions, such as family and marriage institutions, political institutions, economic institutions, and religious institutions.

Such differentiation, however, was apparently not a large part of primitive life but occurred principally with the development of more complex cultures in the centuries following 4000 or 3500 B.C. The important thing for educators to note is that, just as these other activities were not differentiated into separate institutions, so the educational function was not set up as a separate institution but was an integral part of the preservation of tribal culture and folkways. Although great gains were made when the function of education was eventually allocated to a separate institution known as the school, the educational function often thus came to be isolated from the other vital institutions of a culture. When this happened, as it has happened so often in the past and present, the institutionalizing of education was often in danger of becoming a hindrance to cultural change just as much as primitive education hindered cultural change because it was *too* closely related to the cultural process. Our problem is to re-examine the conceptions of culture and of education that we have inherited from the past to see if they are appropriate to our times.

Growing Complexity of Social Institutions (6000 to 1000 B.C.)

The primitive tribal organization of life reflected the fact that social groups were necessary for protection of men in the nomad state of wandering from place to place in search of food and security. Social organization was even more necessary when men began to settle down in the river valleys of the Tigris and Euphrates in Mesopotamia and of the Nile in Egypt. In these two centers human culture advanced enormously and became exceedingly complex as man perfected the use of metals and elaborated systems of written language.

Life along these rivers required such effective social organization and such long-range guidance that leaders emerged who could plan the ways in which their neighbors could be defeated in war, or canals and ditches could be dug to control the floods of the rivers for agricultural purposes, or the masses of people could be kept at their appointed tasks. These leaders became the kings and priests who gave order to life, organized a government, and commanded obedience because of the belief in their divine guidance. Thus, well-defined political, economic, and religious institutions emerged, which characteristically centered in the fundamental needs of maintaining human life, united people into a cooperative

task, and developed bodies of doctrine and special techniques for getting the jobs done.

In the fourth and third millenniums B.C. the centuries were marked by improved skills in manufacture and communication and by continual wars that gradually consolidated the cities into large empires in which were included for the first time several millions of people under one rule. A close alliance between political and religious life gave absolute power and divine authority to the king-priest and his privileged class of office-holders and priests. Class divisions became recognized as normal and morally right, and codes of law and morality were developed to maintain these rights. The development of commerce and trade achieved material improvements that kept pace with increased skill in art, architecture, sculpture, painting, writing, literature, and science. All these developments increased the complexity of life and thus brought about radical changes in the aims, organization, and content of education.

Culture in the Middle East. As a result of the advances just mentioned a strong centralized government was achieved by Hammurabi, the most famous king of the Babylonians. Government and religion became so intertwined that the king's power was considered to be divine, and he exerted great control over all phases of life. Because of the extensive development of commercial interests, the right to hold private property was vested not only in the king but also in the priests and upper classes. The civil law was rapidly developed in written form to protect these rights and recognized class distinctions among rich landowners and merchants, priests, small landowners, soldiers, small commercial traders and farmers, and unfree tenants. Inequality was accepted as normal and right.

After the Babylonians a whole series of kingdoms and peoples rose and fell during these early centuries of civilization. The most important in the eastern Mediterranean and Asia Minor were the Hittite Kingdom, the Assyrian Empire, and the Persian Empire. The Hittites developed a kind of federation of mountain tribes depending upon a feudal class system, private property, codified law, and slavery. As a result of constant wars the Hittites had declined by 1200 B.C., and at the beginning of the first millennium B.C. the Assyrian power began to dominate. The Assyrians created the first purely military empire, conscripting an army from the common people and giving them careful training in addition to improved weapons, swift cavalry, and artillery (the first exponents of the *blitzkrieg*). They are comparable to their modern military counterparts in that they perfected the systematic terrorizing of the enemy through torture and massacre.

The last great empire of this age was that of the Persians, who conquered most of the then known world west of India. The Persian Empire

completed a long political development that started with the tribal organizations of primitive man, progressed through the city and city-state stage to the kingdom stage, in which many cities were united, and finally culminated in a centralized empire covering an enormous amount of territory and ruling millions of people. The Assyrians had made great strides toward this goal by incorporating the conquered kingdoms and cities under their own rule and by enforcing the worship of Assyrian gods. In this process their extremely harsh measures included displacing whole nations by force and establishing new colonists on their vacated lands.

The Persians proved themselves much more able empire builders not only by treating their subjects more tolerantly and humanely but also by looking upon their empire as an integral whole. They introduced uniform coinage, built military roads, and granted a large measure of local autonomy and freedom to develop local languages, literature, and art. As a result of internal peace, light taxes, royal patronage, common coinage, and rapid communications, commerce and trade as well as agriculture prospered under the Persians. The political and economic forms thus developed are extremely important because they set the pattern that was later accepted by Alexander the Great and by the Roman Empire and thus was bequeathed to modern Europe. In this conception the king's power was considered as absolute, unlimited, and divine. There was no tradition of democratic self-government in these Oriental despotisms.

Egypt. The main outlines of development along the Nile River in Egypt were similar in many respects to those in the Middle East and Asia Minor. Egypt was much more isolated, more self-contained, and less exposed to attacks and therefore developed a less highly militarized civilization. Politically, Egypt was united under a long series of dynasties of pharaoh-kings, whose history is usually divided into three periods called the Old Kingdom (fourth and third millenniums B.C.), the Middle Kingdom (2000 to 1600 B.C.), and the New Kingdom (1600 to 1000 B.C.). To assist him in his absolute rule the king relied upon a priestly class, who lived in specially assigned temples, conducted propitiatory rites to the gods, embalmed the dead, and gave instructions concerning the accepted ways for departed souls to receive favorable treatment at the day of judgment. The king also had a large coterie of secular officials to carry out his commands in the army and navy, to collect taxes, to organize public works, and to maintain order. All these officials were accountable to the king, who disposed of their lives and property as he saw fit. Whereas in Babylonia the forms of private property, civil law, and rigid class divisions were achieved, the situation in Egypt allowed of more flexibility despite the basic inequalities and privileged

separate groups. It was more possible to pass from one class to another, and no one had absolute power over his own property because it all belonged in theory to the king.

Eastern Mediterranean. Besides the great empires already mentioned, many other civilizations had their day along the eastern shores of the Mediterranean and among the islands of the Aegean Sea. The Phoenicians were important for their wide-ranging commerce and trade and their refinements of alphabet and language. The cities on the coast of Asia Minor and the inhabitants of Crete likewise developed a remarkable ability in commerce, architecture, and engineering. The cities on the mainland and islands of Greece were developing a culture and forms of social organization that were much more democratic than those of the Oriental kings. These will be described at greater length in the next chapter.

Important too because of the impact of their culture upon the whole Western world was the development of the Jewish tribes, who made their exodus from Egypt under Moses about 1500 B.C. After they settled in Palestine, a long period of rule under the patriarchs and judges was followed by a period of rule under such kings as Saul, Solomon, and David. In 722 B.C. the 10 northern tribes were conquered and transported to Assyria. The 2 southern tribes of Judea were conquered in the early sixth century B.C. and taken into exile by the Babylonians under Nebuchadnezzar, where they stayed for 50 years until released by Cyrus, king of the Persians, to return to Palestine. Palestine was later conquered by Alexander and then by the Romans. Although the Jews were dispersed as a nation by the Roman emperors, the Jewish culture lived on to influence Western civilization at innumerable points both religious and scientific.

As one looks back over the long development of human institutions so briefly described in these few pages, an outstanding educational implication becomes clear. Whereas the individuals in a primitive tribe were considered to be more or less equal in importance to the tribe, the practice of inequality and rigid class distinctions grew stronger as social institutions became more clearly differentiated. Whereas in the primitive tribe each individual made his expected contribution to the safety and welfare of the tribe, the Eastern cultures began to place more value upon the persons and rights of the privileged classes and less value upon the mere worker and slave. Consequently, as education also became a differentiated social institution, it was naturally assigned to the privileged classes to be controlled and administered in their interests rather than for the whole people. It was hundreds of years before a kind of

culture developed that widened greatly the range of persons deemed fit to partake of a formal education. This the Athenians in Greece did.

THE IDEAS MEN LIVED BY

Relation of Man to Nature and to the Supernatural

The primitive mind. Primitive man apparently did a most natural thing when he saw a close relationship between himself and the rest of nature. He was so much at the mercy of the physical world and the animal world about him it is no wonder that he deified nature, fearing and worshipping it and at the same time describing it in terms of himself. We are likely to look upon the mind of primitive man as excessively credulous and unsophisticated, but in doing so we may not appreciate sufficiently the value of his attempts to orient himself to the world about him in highly imaginative and colorful ways. The development of magical beliefs was a real attempt to explain the reasons for the natural and human phenomena that he saw about him. These magical and religious beliefs were worked out into the elaborate networks of folkways and taboos that controlled the conduct of individual men through the fear of the consequences of not behaving in certain ways. When man began to be more successful in controlling nature, he began to be more sophisticated and logical in his intellectual approach to it.

Emergence of a conception of morality and of God. Sometime during the fourth and third millenniums B.C., the people of Egypt began to evolve a more highly developed sense of morality and ethics as a means of controlling human conduct. Standards of right and wrong changed as the gods came to be looked upon not merely as powerful agents that shaped human destiny out of hand but as moral beings who ruled wisely and justly. Thus, the conception of human morality achieved a more sophisticated stage, for men were expected to behave morally according to the wish of the gods or reap the consequences in the form of punishment. The primitive necessity of a constant struggle with the forces of nature gradually gave way to the attempt to set up desirable social relationships among men.

In Egypt this attempt took the form of an overwhelming interest in the future life, for which elaborate preparations were made during this life. In Babylonia, however, the attempt to devise a moral order tended to take the form of legal codes and ordered social arrangements on this earth. The Babylonians and Persians had their rich religious legends, but they were never so much concerned with the afterlife as they were with divining the ways in which man should behave here and now in the light of the influence of the stars and of magic.

The sense of personal responsibility and conscience was most highly developed of all among the Jews, whose conception of Yahweh, or Jehovah, came to influence all Western conceptions of God. The Jews went beyond all other Eastern civilizations in giving to Yahweh complete control over the life and destiny of human beings in the belief that everything in life flowed from him. In the Mosaic conception Yahweh was exacting and definitive in his requirements concerning personal behavior and the acceptance of responsible conduct. The laws laid down precise prescriptions, not only for moral behavior in general, but for the details of religious ceremonies and vestments and the activities of personal life. In the second millennium B.C., Yahweh was conceived somewhat anthropomorphically as a stern patriarch who watched over his family, fought for it, and was jealous of the worship of other gods.

Between the tenth and sixth centuries B.C., the conception of God was broadened, mainly through the efforts of such prophets as Hosea, Amos, Isaiah, and Jeremiah. God was conceived as a single divine being, the creator of the whole world and the God of all peoples, all-powerful, all-wise, and all-just. The prophets emphasized the ethical and spiritual aspects of God and set Him above time and space as the God not only of power but of righteousness. All knowledge, truth, and wisdom flowed from God to man, who should accept the revealed truth as a divine commandment. This monotheistic conception of one universal God, not confined to one people or one region, was one of the enormously influential conceptions that has affected all Western civilization since that time, defining as it did the religious and ethical relationships of man to man and of man to the supernatural. Education for the last 2,000 years has felt the impact of this conception, down to the present time.

Emergence of Written Language and Literature

One of the most far-reaching steps that human culture ever took occurred when men began to write down their ideas for others to read. During the long millenniums before writing was devised, the accumulated customs, beliefs, and stories of man had to be remembered and conveyed orally. This meant that a considerable amount of variation and inexactness resulted in the process of communication. The development of writing made possible the more exact setting down of customs, ideas, laws, stories, and conceptions of nature. Thus, as folkways were crystallized in writing, they gained in accuracy and usefulness, but they also became more rigid and more stultifying to later generations, who were often brought up to live according to the written materials of the past rather than according to the conditions of life prevailing in their time. The invention of writing must be considered one of the most

illuminating steps that was ever taken by human beings, but it must also be recognized that grave educational problems were created in the process. Writing tended to change education, for example, from an informal and direct induction into the culture to a formal and bookish dealing with written symbols. These gains and losses must be properly assessed as one looks at the amazing achievements of human culture.

As primitive man began to scratch on walls rough pictures of the world he saw about him, he was laying the basis for a process that through long centuries in the third and fourth millenniums B.C. culminated in written symbols of communication. In Babylonia and in Egypt this process in general took the form at first of picture writing, or pictograms. These came not merely to refer to the object portrayed but to have a meaning beyond the actual object and eventually to designate a spoken sound, or vocalization. Eventually the written signs referred to words, syllables, and consonants that, when put into different combinations, enlarged enormously the scope of the meaning conveyed. When single letters were organized into an alphabet, the final stage in the evolution of writing had taken place. The principal western European languages derived from the Aryan language groups of India and Europe. The principal Semitic languages became Hebrew and Arabic.

As far as we can tell, writing developed not as a sudden inspiration springing from the intellect of man but as a cultural tool by which men exerted greater control over their social affairs. It is probably no accident that written language appeared as civilization became more complex and the necessity arose of keeping records of government, commercial, and religious affairs. The earliest of written records apparently consisted of accounts, lists of property holdings, legal documents, letters, name lists, itineraries, medical formulas, and magical recipes. In Babylonia writing was used by the kings to commemorate themselves, and in Egypt much use was made of writing for religious purposes. The ease of making paper from the papyrus plant in Egypt accelerated the process in Egypt. When the process had been developed to a high state of efficiency, the writing included legal codes, religious codes, and stories and songs that had been passed on by generations of oral interpreters, culminating in the Egyptian *Book of the Dead*, the Hebrew Biblical literature, and the Homeric epics.

In general, writing was confined to the privileged few, namely, the upper classes associated with the kings and priests. The ability to write was a means of preferment, both secular and religious, that came to be highly prized for the status it conferred. It is no wonder, then, that formal arrangements for teaching grew up in connection with the necessity to acquire the ability to write and the desire to achieve preferred status in the culture. As long as the written languages were extremely

difficult to learn and to use, the practice of writing was largely confined to small, exclusive, even secret, groups of priestly or official classes. As written language was simplified and became more available to greater numbers of people, a profound democratizing influence was made possible that has even yet not been fully exploited by the civilizations of the world. When education was made available to wider groups than the kingly or priestly classes, the foundations for a more democratic culture were being laid.

The Social Origin of the Arts and Sciences

Along with written language the development of more refined tools and more accurate knowledge enabled man to exert greater control over his environment and emerge from a primitive state of culture to a more advanced kind of civilization. When modern educators eulogize the universality and permanence of truth and knowledge, it is well to remember that organized knowledge grew up in connection with the social necessities of controlling the physical environment and human conduct. When they speak of the desirability of studying "pure" science apart from its practical applications, it should be remembered that science appeared in the midst of a practical and social situation. When they speak disparagingly of the practical arts in favor of the fine arts, it should be noted how closely these arts were connected in their social origins.

In the third millennium B.C., advances in mathematics and science kept pace with the material and economic improvements in Egyptian and Babylonian culture. Arithmetic was refined as the necessity for counting and the keeping of accounts arose in the commercial process of exchanging goods and building roads and in the political process of levying and collecting taxes. Geometry was refined in the process of controlling the floods of the Nile, building dams, digging canals and irrigation ditches, and erecting the pyramids, temples, and public works. Astronomy was refined in the process of predicting the annual floods of the river and improving navigation for commercial purposes. The calendar year of 12 months divided into 30 days each, with 5 additional days to make 365, was a result of these computations and also of the desire to determine religious holidays and festivals. The division of the hour into 60 minutes, the day and night into 12 hours each, and the week into 7 days is an achievement that obviously still affects our measurements of time. Medicine was refined as attempts were made to ward off or cure illnesses by the use of magical or religious methods.

The advances in architecture, sculpture, and painting are most impressive when compared with the attempts in such activities made by

primitive man before he achieved the necessary technical competence. The pyramids of Egypt remain as almost incredible achievements of planning and mechanical ingenuity. The sculpture of the Egyptians has an extremely lifelike realism about it despite its stylized elements. Many of the art products of Egypt center in the personage of the king and his family and their concern for the afterlife. The pyramids were tombs for the kings, and the sculpture was an attempt to represent the dead in permanent form.

Babylonian artists seem to have been interested not so much in the afterlife of their kings as in portraying their earthly power and their prowess in war. The Babylonians, Hittites, and Assyrians displayed extraordinary skill in portraying realistic warlike scenes with great numbers of men and horses involved. The palace architecture in these societies and especially in the Persian Empire reached a remarkable perfection of technique joined with artistic expression. The skill and knowledge necessary for these achievements had to be acquired through special training and could not be picked up incidentally. Thus, the appearance of the formal teaching process emerged as the culture became so complex that it could not be renewed without special attention. It was at this point in human cultural development that the school as a differentiated institution appeared.

ORGANIZATION AND CONTROL OF EDUCATIONAL INSTITUTIONS

Primitive Educational Agencies

Definite and differentiated social institutions for educational purposes were not clearly apparent in primitive societies. This meant that control of the educational process was typically in the hands of the family, who had the responsibility of training the children in the accepted folkways of the tribe. In many tribes, however, some special persons came to be recognized as having peculiar functions in the formulation of tribal customs and ideals. These elders, medicine men, seers, or storytellers began to constitute something of a priestly and therefore teaching class. There is evidence that special training was often given to those who were to be inducted into the priestly class. This consisted of special transmission of the peculiar abilities of the class, whether of special knowledge of certain magical formulas or certain songs or of the ability to conduct certain rites and ceremonies. Where secret fraternities existed, they developed their own special initiation processes. In addition, some tribes apparently had certain handicraft or occupational groups that specialized in housebuilding, metalworking, toolmaking, garmentmaking, or tattooing. These groups would then initiate young people into the skills and secrets of the group.

Many tribes also conducted special initiatory or puberty rites for the adolescent boys and girls who were to be inducted into full adult membership in the tribe. Although puberty rites were not characteristic of all tribes, they represented a kind of educational agency that was commonly controlled by the elders of the tribe for tribal purposes. It is apparent that education was carried on, not by separate schools or educational institutions, but by the adult members of the tribe in the course of their ordinary activities. All adults were teachers, for the teaching function was not delegated to special teaching groups nearly so much as in more complex and more modern cultures. It may be that the reliance upon formal schools and specialized teaching in primitive tribes was greater than we now believe; the absence of written records makes certainty impossible.

Appearance of the Formal School

The best evidence seems to indicate that the formal school appeared at that stage of culture when it became important to pass on the written literature and to teach certain people to write. It also seems clear that such schools grew up under the control of the priestly class or of secular scribes to whom the art of writing was essential. It is fruitless to try to state exactly where and when the first school appeared. The main point is that as education came more and more to deal with written material it became more and more necessary to develop formal education. In Egypt it seems clear that schools developed in connection with the temples and with those aspects of the king's offices that required writing. We have evidence of these schools in the remains of copybooks made by boys who were learning to write.

By inference it can be assumed that such schools were set up in Babylonia for somewhat similar purposes, to train priests and officials to take part in the affairs of the king. After the Babylonian Captivity of the Jews, they went back to Palestine and soon thereafter set up schools similar to those with which they had presumably come in contact in Babylonia. A little later, lay scribes became the teachers of Hebrew among the Jews, conducting schools in the synagogues. The religious control of education was always uppermost in Jewish culture; by the beginning of the Christian Era, schools were required to be set up in every Jewish community, and compulsory education for boys was a part of the law.

In the period prior to 1000 B.C., then, it seems clear that schooling was organized and controlled primarily for the privileged classes. It had a high scarcity value for preferment and status in the religious, political, and economic life of the times. One who could write was sought after by king and merchant as well as by priest. For the great

masses of people, formal schooling was no part of the prospect; consequently, whatever educative process was available to them was conducted through nonschool agencies. Families brought up children to engage in the kind of occupation they knew, whether farming, herding, or artisanship of some kind. Education for the masses of people in Egypt and the Middle East was essentially like that of primitive peoples. They were molded by the culture they found about them, the folkways they accepted, the spoken language and tools they used, the religious ceremonials they observed, the work and fighting imposed on them by their rulers, the stories that were told, the songs that were sung, and the rules of conduct that they obeyed.

EDUCATIONAL AIMS, CURRICULUM, AND METHODS

In Primitive Societies

In general the aim of education in primitive societies was the same as that in any other culture, namely, to enable the individual to become an integral part of the cultural life in which he existed. Some modern educators would deprecate this definition of the aim of education and would point to primitive education as a horrible example of a static and fixed molding of the individual by the culture. The trouble, however, is not so much with the definition of educational aim. The fault, if there be any, lies not in the aim of primitive education but in the nature of primitive society, which sought to be unchanging and rigid and static. Primitive education was well suited to its culture. There is no reason why a dynamic and flexible culture should not develop an education appropriate to itself, thereby enabling the individual to take his place as an integral and functioning part of that kind of culture, able and willing to carry on the process of change and creativeness.

Inasmuch as primitive culture sought the perpetuation of the group folkways, education sought to create individuals who would carry on the folkways unchanged and reinforced. Again, it is difficult to generalize about primitive education because the theories and practices varied so widely among the countless different tribes. Each tribe tried to bring up its children in the image of its elders. Some tribes taught respect for property; others did not. Some gave special attention to developing technical and vocational skills; others left these skills to chance and casual imitation. Some gave special instruction in magic; others gave no formal instruction. Some inculcated attitudes of shame and chastity toward sex; others encouraged promiscuity.

In any case primitive education knew nothing of books and schools. It was motivated by the needs of self-preservation; it was direct and effective; and it was carried on by the active participation of the learner

as he imitated the adult activities or was shown how to make tools, engage in the hunt, and fight in the wars. The children played at hunting, fishing, and making war, as modern children play at keeping house, running a fire engine, or flying an airplane and driving a tank. They observed the qualities in action that the culture recognized as good, and they were warned against or punished for actions that the tribe considered inimical to its welfare. They heard the folklore and the songs that made up the historic tradition of the tribe, and they felt the pressures of public approval and disapproval.

In the initiation rites at puberty, the boys and girls often went through elaborate and solemn ceremonies, which served to impress upon them their obligations and duties as accepted members of the tribe in good standing. All sorts of variations were found in these puberty rites, but some of the more common aspects can be listed, though it should be recognized that no one tribe included them all. Physical suffering was often a feature, to test the stamina and endurance of the initiate. Direct moral precepts were preached to the young, telling them of the desirable qualities of character. Many features in various forms symbolized the new status: a change of name, the conferring of magical powers, the imposing of long periods of silence, purification of the body, circumcision, tattooing, drinking each other's blood, and any number of other kinds of tests and rites.

In More Advanced Societies

The aim of education in the more complex cultures remained in essentials the same as that in primitive societies, but the means of assimilating the individual to his cultural tradition put much more emphasis upon the acquiring in schools of a knowledge of the *written* tradition. The school became the specialized place where the language and written material were learned through memorizing the accumulated knowledge of the past and the accepted modes of conduct.

Egyptian education. Egyptian boys learned the moral precepts that were contained in the priestly literature. The most important was the *Book of the Dead*, which described minutely how the departed soul should behave in the afterlife in order to achieve happiness. The copy-books used for teaching the difficult art of writing the Egyptian language also contained didactic stories and precepts that were apparently designed to inculcate the accepted qualities of virtue, obedience, reverence, modesty, and manners. Emphasis was put upon unvarying repetition and exactitude, with little or no chance for creativeness and originality. The handing down of the more advanced sciences and arts must have been accomplished in some more or less formal way, but our knowledge of this is limited. Basic to all kinds of formal education were the desire

for and insistence upon proficiency in writing. The dominance of the religious motive kept Egyptian education, although more complex, upon much the same rigid and unchanging level as that of primitive societies.

Jewish education. In the long centuries before the Babylonian Captivity in the sixth century B.C., education among the Jews was much like that among other tribal societies. Education was primarily a matter of training within a family in which the father was absolute ruler. The child also learned from watching or taking part in the activities of the tribe as it engaged in harvesting, sheepshearing, wars, religious songs, ceremonies, prayers, and feasts and fasts. Perhaps more than that of any other early people the education of the Jews centered in religious activities, observances, and commandments. The religious law was handed down orally for centuries and provided a central core of instruction emphasizing the ethical and ritualistic commands of Yahweh.

During the Babylonian Exile the Jews saw their identity as a people narrowly escape obliteration, and after returning to Palestine strenuous efforts were made to prize and preserve their religious customs as a means of preserving themselves as a nation. The synagogue became the central place of worship and instruction; and as the oral traditions were written down in the Hebrew language, they became the basis of the Old Testament. The books of the Mosaic Law, or Pentateuch (Genesis, Exodus, Leviticus, Numbers, and Deuteronomy), became the basis of instruction and the indispensable core of teaching and learning. In the schools that appeared in the fifth century B.C., taught by the scribes in the synagogue, the young boys memorized large parts of the Pentateuch in the Hebrew language. Hebrew had become a learned tongue, for it was no longer spoken generally but had given way to Aramaic as the common speech of the people. The older boys went on to study more of the Biblical literature; those who could afford to spend the time would often continue their study of religious literature and thus become scribes, whose status in the community was very high. It is probable that the schools also taught some ciphering and sacred music, and the obligation was put upon parents to teach their sons a trade. In general, the methods of teaching admitted of little deviation. In this respect they approximated those of the Egyptian schools, for absolute mastery of the subject matter by memorizing it thoroughly seemed to be the ideal of method. Severe punishments along with religious injunctions were a part of the accepted means of motivation to learning.

CHAPTER II

ANCIENT GREECE

THE INSTITUTIONS MEN LIVED BY

One of the most noteworthy aspects of Greek culture and one that has had a profound effect upon all later history was the gradual shift during the first millennium B.C. from an essentially primitive and tribal organization of society to a political organization. When tribes began to settle in contiguous territories and began to give up their independence and sovereignty to the political state, mankind was on the way to creating a social institution that obviously has enormous influence today. We need merely note here the all-inclusive ways in which the modern national and political states demand and command the loyalties and energies of men throughout the world. Even more than in Egypt or in other Mediterranean cultures, the Greek development of differentiated political institutions changed the course that education was to take. For the first time education assumed a broadly political function, and we are still struggling with the problem of what relation education should bear to the state.

Political Institutions

Aegean age (2500 to 1200 B.C.). The origin of the peoples who inhabited the Greek peninsula and the islands of the Aegean Sea is shrouded in considerable mystery. In the third and second millenniums B.C. a relatively high culture was developing that doubtless borrowed much from Egyptian and eastern Mediterranean cultures and in turn affected them. In the second millennium the island of Crete apparently was a nerve center of this culture, located as it was on the sea routes between Egypt, the Middle East, and the European mainland of Greece. Borrowing ideas concerning metalworking and language from Egypt and the Middle East the Cretans built great cities that lived in relative peace with one another under a loosely devised federal system, ruled by a king and his army. The Aegean king, however, was much more closely related to his people than the king-priests of Egypt and Babylonia or the kings of the great Mediterranean empires. He was more nearly a

leader of equals engaging in the same warlike activities and seagoing pursuits as his people.

The culture developing on the Peloponnesus of the Greek mainland was centered in Mycenae, whose culture was much like that of Crete except that the fortifications of the cities showed that the danger of war was much more present than in Crete. The Cretan-Mycenaean civilization not only displayed an extensive seagoing trade amid the many wars but a stock-raising and farming life of advanced proportions as the primitive tribes began to settle down into numerous political units, or city-states. In the fourteenth century B.C. the power of Crete was destroyed, probably by an alliance of Greek city-states from the mainland; and for centuries thereafter a series of wars took place over all of the Aegean area, one of which was the Trojan War, near the end of the second millennium B.C., celebrated in the epic poems of Homer known as the *Iliad* and *Odyssey*. The most important result of these wars was the shift of power to the islands of the Aegean Sea, the Greek mainland, and the coast of Asia Minor.

Homeric age (1200 to 700 B.C.). It is fairly certain that several series of migrations occurred near the end of the second millennium and the beginning of the first millennium B.C., and it is probable that the ancestors of the ancient Greeks consisted of various Indo-European tribes who came down from the Danube region. The persistence of different dialects of a common Greek tongue gives some clue to the different wars of invasion. In any case the two most important language groups were the Ionian and Dorian, which divided up much of the Greek-Aegean region. The mountain ranges and deep valleys cut Greece into small economic units and correspondingly into small, independent, political units known as city-states. Since the easiest means of communication and travel was the sea, the city-states on the coasts and islands developed more rapidly than those in the interior.

The city became the center of a relatively small unit of surrounding territory inhabited by herdsmen and farmers living at large or in small villages (*demes*). The number of such city-states increased rapidly and they came to be ruled by kings and aristocratic families. The political forms remained largely what they had been in Aegean times. The king was typically a strong leader who achieved power by virtue of prowess, wealth, or fighting skill greater than those of his fellows and who relied for help and advice upon the members of the well-established aristocratic families. The Homeric poems describe this period of Greek culture in all its various forms. The fact that the political foundation of Greek culture had a more democratic basis than that of the Middle East is extremely important for the development of education and the political traditions handed down to Western civilization.

Aristocracy versus democracy (700 to 500 B.C.). From the eighth to the sixth centuries B.C. the city-state pattern of political organization began to take shape in its more advanced form in which sovereignty became attached to the state. The city rather than the tribe became the political, economic, and religious center of group life, and the inhabitants of the territory became citizens of the state who jointly organized the corporate life. In general, the political power during this period shifted from the tribal king to the aristocratic families, then to a larger body of property owners, and finally to the citizens in general. Such a process was often chaotic and irregular, and the whole process did not take place in all city-states. Sparta is the most outstanding example of the process in the form that stopped at aristocratic control, whereas Athens is the best representative of the process in the form that continued through to a democracy among the citizen class.

In either case an extraordinary development took place when the conception arose that law was a man-made affair resulting from the efforts of the citizens to draw up regulations for individual and group conduct. This is most important in the history of culture and of education. In the Eastern despotisms the law was the word of the king, who claimed divine revelation, and thus it absolutely controlled all men and could not be changed. In Greece the law, being man-made, could be changed by men if it became too much of a hardship, even though it was considered binding while in force. With this conception of law man began for the first time to try to control his social institutions for the good of man, just as earlier the Egyptians and Babylonians had begun to control their physical environment for the good of man.

Sparta. The most powerful state on the Peloponnesus, or lower area of Greece, was Laconia, of which Sparta was the inland center and capital. The constitution of Sparta has a peculiar and fascinating significance for our own time, which has witnessed the rise of strong totalitarian and militaristic states based upon the conception of a "master race." The laws of Sparta provided for three well-defined classes: the Spartan citizens, who ruled the state; the provincials (*Perioeci*), who had economic but no political rights; and the Helots, who were virtually slaves, had no rights, and made up the great majority of people. The Spartan citizen class doubtless represented the Dorian conquerors of the region, the Helots may have been the conquered, and the provincials were perhaps persons of defeated states that had come under the domination of Sparta.

Within the citizen class there was some resemblance to democratic forms despite the aristocratic nature of the whole system. Two kings were the heads of the government, ruling with the advice of a Council of Elders and by means of overseers known as ephors. The council and

ephors were elected by the popular assembly, which consisted of all adult citizens, who were, in effect, the army. This system aimed at a completely militarized state run by the military-citizenship class in their own interests. Helots were assigned to work for the citizens, who in turn were not allowed to engage in commerce, artisanship, or any activity but war and training for war. The Helots were kept in a constant state of subjection, servitude, and surveillance. A particularly active or intelligent Helot was likely to be "liquidated" for his pains. The parallel of the aims and practices of the Spartan state and those of the totalitarian states in the twentieth century is unmistakable to anyone who has read modern newspapers.

Athens. One of the most outstanding differences between Sparta and Athens is that Athens apparently united the surrounding territory of Attica into a single state more largely by peaceful methods than had Sparta. The unification of Athens took place more by gradual agreement and cooperation than by harsh military conquest. As a result, the base of citizenship in Athens was much broader than in Sparta. At the beginning of the seventh century B.C. the rulers of the state consisted of a king, the *polemarch*, who was the military leader, and the *archons*, who were the magistrates, or civil officials. Gradually the king's political power began to decline, whereas the other officials became more important and gradually came to be chosen by the popular assembly, consisting of all citizens of the state. These magistrates were assisted in their decisions by a Council of Elders, made up of aristocrats and named the Areopagus, after a hill upon which the meetings were held.

The process of widening the base of citizenship was one that went on more or less successfully through the seventh and sixth centuries B.C. At first the large property owners constituted the bulk of the army; then, as a stronger army was needed, more and more citizens were admitted on the basis of their wealth. This meant that the small landowners, artisans, and workers were still excluded; but throughout this period, sometimes called the "age of tyrants," the underprivileged under the leadership of a "tyrant" would rise up against the entrenched groups in order to achieve more equality under the law. These tyrants would gain power with the support of the small landowners, artisans, and commercial classes and then try to improve the status of these classes in the civil and criminal law. Draco is a semimythical lawgiver of ancient Athens whose laws reveal the harsh character of legislation against which the tyrants fought. The term "tyrant" has a definitely disagreeable connotation to modern ears, but it should be remembered that the Greek tyrants were often men fighting for the interests of the common people, despite the fact that once in power they were often inclined to

serve their own interests just as the kings and aristocrats had done for centuries.

Solon was the first great lawgiver in Athens who can be verified historically, and to him is credited a substantial improvement in the status of the lower classes. Mortgages and debts were eased, punishment, imprisonment, and slavery for debt were abolished, speculation in land was controlled, and export trade in olive oil was encouraged. Most important of all, the lower classes were admitted to citizenship and thus entitled to a place in the army and the popular assembly. The transition from aristocracy to democracy was thus greatly advanced by Solon and by Pisistratus, who continued the process of weakening the aristocracy by distributing their land to the poor and otherwise limiting the power of the aristocratic institutions.

The way was therefore cleared for the establishment of almost complete democracy among the citizenship class by the great Cleisthenes, whose constitution took effect in 502 B.C. The political basis of suffrage was changed from a tribal basis to geographic groupings, which centered in the three main elements in the population of Attica: the commercial class of the city of Athens, the seafaring groups on the coast, and the landowning classes of the rural and mountain areas. Ten new "tribes" were formed, each having an approximately equal share of members from these three geographic elements; these tribes elected the various military, executive, legislative, and judicial branches of the government.

The legislative branch was the popular assembly; the judicial branch was the large elected law court; and the executive branch consisted of the Council of Five Hundred (50 members elected by lot from each of the 10 tribes), the magistrates, who carried out the desires of the council, and a continuation body (prytany) of 50 members, who held office for one-tenth of the year under a rotating chairman holding office for 1 day. Thus, the basic forms of Greek democracy were established, even though the aristocratic classes continued to hold a high place. Public officials were not paid a salary, and therefore it was largely the wealthy group who could afford to give full time to politics. The Greek penchant for amateur standing may have stood in the way of achieving the fullest kind of democratic process.

The golden age and decline of Athenian democracy (500 to 300 B.C.). The height of the political and military power of Athens was reached in the fifth century B.C., along with the greatest effectiveness of the Athenian democracy. Athens was drawn into the scene of international politics and war when the Greek cities of Asia Minor revolted against Persia in the early years of the fifth century and Athens made so bold as to send aid to these Greek cities. This led eventually to the Persian Wars in which Darius and Xerxes attempted to chastize Athens for her

presumption. As a result of a series of battles at Marathon, Thermopylae, Salamis, and Plataea, the Greek city-states with Athens at the head emerged victorious. The Delian Confederacy, formed to ward off further invasions from Persia, was gradually transformed by Athens from a league of independent states to an Athenian Empire, in which the states were virtually under the control of Athens.

This process was achieved under the aegis of Pericles and the democratic party in Athens, which was also the party favoring a strong imperial policy in order to improve commerce in the interests of the rising mercantile and artisan classes of Athens. The popular assembly gained more power at the expense of the Council of Five Hundred, and the most extreme form of democracy yet known took shape. This process was achieved by merchants, sailors, artisans, and small farmers against the opposition of the conservative wealthy groups represented by the ancient nobility and large landowners. Pericles was the great leader of the "Liberal Democratic" party between 460 and 430 B.C., a period often known as the Periclean or golden age of Athens.

Democratic and imperial Athens was bound to come into conflict with the other most powerful military state in Greece, aristocratic and conservative Sparta. Athens was trying to unite all of Greece into a large political unit under her leadership and control. Sparta upheld the right of self-determination of small states (except for those under *her* control). The long rivalry for power and for control of markets led eventually to the disastrous series of military campaigns known as the Peloponnesian War from 431 to 404 B.C. This was largely a struggle between Athenian sea power and Spartan land power, between a democracy and a military dictatorship. It was not until Athenian sea power was destroyed by a series of mistaken and traitorous actions that Sparta finally was able to impose terms of peace upon Athens. Democracy was discredited in the eyes of many, although it was able to restore itself soon after the war, and the ideal of a unified yet free Greece was all but lost.

The fourth century B.C. saw an attempt by Sparta to rule all of Greece, but another series of wars against Persia so weakened Sparta at home that Thebes was able to become for a time the dominant political state of Greece. For several decades the political situation in Greece was chaotic, not to say anarchic, as each city-state fought against the others. The desire for complete independence was so deeply rooted in Greek political traditions that the cities could not unite voluntarily, and no one city-state could impose its military power long enough to bring about a consolidated state. A strong individualism matured by the growth of mercantile and capitalistic interests prevented the building of a cooperative social consciousness that would have made for real union.

Excessive individualism (Americans have called it "rugged") proved to be an essential weakness in Greek democracy. The increasingly wide discrepancies between the economic status of the lower classes of citizens and the wealthy upper classes also led to constant conflicts that weakened the attempts to achieve national unity. When the oligarchs were in power, they would seek to consolidate their own interests. When popular movements gained power, the attempt was to "soak the rich." Citizens began to lose interest in politics and to resist the burdens of military life, so that professional politicians and professional or mercenary soldiers began to take over the field. Slavery became much more common, and the ground was prepared for the loss of independence as the number of citizens decreased, the class of noncitizens increased, patriotic zeal weakened, and military preparedness rested with a professional army of hired soldiers.

Hellenistic age (300 to 150 B.C.). The time was thus ripe for the invasions from the north and east by Philip of Macedonia, who had learned of military life as a prisoner in Thebes and had then been able to solidify all of Macedonia under his power. Alexander the Great followed in his father's footsteps, conquering not only Greece, but Asia Minor, Syria, Egypt, and Persia as far east as India. Alexander administered his empire largely on a military basis, but he also attempted to bring the native elements into positions of control along with Macedonians and Greeks. The principal means of consolidation was the army. When Alexander died a series of wars took place among the various regional generals, who had divided Alexander's empire among themselves.

After a long period of warfare three large units emerged, Macedonia, Syria, and Egypt, each under its own ruler and each carrying on wars against the others throughout the Hellenistic age, until all were finally brought under the sway of Rome. The ruling classes in the Hellenistic powers were largely made up of Greeks and Macedonians who had brought their Greek culture with them. Alexandria in Egypt, Pergamum in Asia Minor, and the island of Rhodes became great intellectual and artistic centers, rivaling Athens, which had maintained the forms of a democratic constitution but had lost the vitality of democracy with the loss of political independence. As monarchy was imposed once again in Greece, a long process was consummated, a process starting in kingly rule and shifting to aristocracy, then to democracy, and finally back to monarchy. Somewhat parallel to these political changes the nature of education also changed. It seems clear that Greek education was most vital and rewarding when Greek democracy was at its height.

Economic and Social Institutions

Aegean and Homeric times (2500 to 700 B.C.). In earliest Aegean times economic and social institutions centered in an agrarian way of life that at first emphasized agriculture and stock raising and then expanded to olive and vineyard products. The ownership of land and of herds of livestock largely determined social position and class status, with the landed aristocracy at the top of the social scale, the small landholders next, and the unfree slaves at the bottom. Necessary consumers' goods of food, clothing, and tools were made within the family or local circle. Work with the hands was not considered menial at this time for even the upper classes engaged in it. Specialized skills of artisanship gradually grew up in connection with shipbuilding, public defense, and weaponmaking. Commerce that often virtually amounted to piracy was increasingly carried on by the seagoing traders from Greek cities, shifting first from its original center at Crete to Asia Minor and the Aegean islands and finally to the Greek mainland. The Greeks needed the metals and began to demand the products of superior craftsmanship of the Eastern cultures, and thus trade was kept alive with Egypt, Phoenicia, and the Middle East despite the many wars.

Economic revolution (700 to 500 B.C.). In the period from the eighth to the sixth centuries B.C. profound economic changes took place in the Greek world. The Greeks on the Aegean islands and in Asia Minor found that their olive and wine products were superior to those of the rest of the world; they at last had found products that the Eastern cultures desired. An active trade grew up of much larger proportions than ever before, as a result of which the Greek countryside began to be converted from farming and stock raising to the cultivation of vineyards and olive trees in order to take advantage of the profitable trade. This meant that large tracts of land were more profitable than small ones. As a consequence, the class of large landowners grew more powerful as did the class of merchants engaged in commercial and manufacturing activities, and the plight of the small landowners and free artisans became worse and worse. This, then, is the age when aristocratic control in political affairs reflected the economic supremacy of the upper classes, both landowning and commercial. The lines of future economic and class conflict were being laid in this economic revolution.

Another most important corollary of the economic changes just mentioned was the need for colonies to produce the foodstuffs and textiles that were no longer being produced in sufficient quantities at home. The struggle for markets led to a most active period of colonization until Greek settlements were found in almost all parts of the Mediterranean world, as far west as Spain and France but more particularly in Sicily

and Italy, where they came into contact with the native cultures. All this activity led to the use of money for exchange purposes and then to the credit, banking, and money-lending business. This tended further to burden the small owner with debt, which, if not paid, could lead to loss of his land and even to loss of his own freedom. Urban life became much more important than ever before, as dispossessed persons sought a new living in the cities and as others tried to improve their economic status. Each city came into rivalry with other cities, leading to the constant wars that have been mentioned. Within the cities themselves the conflict grew, on the one hand between aristocratic landowners and a new aristocracy of moneyed wealth, and on the other hand between these aristocracies and the common people. The varying solutions to these class conflicts as reached in the aristocratic stratification of Sparta and the gradual growth of democracy in Athens have been discussed in the preceding section of this chapter.

Dominance of Greek economic institutions (500 to 150 B.C.). The more flexible commercial and manufacturing development of Athens enabled her in large part to bring about a successful conclusion to the Persian Wars. The creation of the Delian Confederacy enabled Athens to become the economic center of the Mediterranean world in the fifth century; and as the confederacy was converted into the Athenian Empire, wealth poured into Athens. This meant that Athens tried not only to be a political democracy but also to follow a strong imperial foreign policy. Such a policy helped both the commercial and artisan classes of Athens, which joined forces to make up the democratic political party (as already noted). The scene of commercial activities shifted from trade with the East to the western markets of Gaul (France) and Italy, and it was rivalry over these markets that helped to bring on the Peloponnesian War between Athens and Sparta.

In the fourth century B.C. the rugged individualism of capitalistic-minded Greek city-states helped to destroy the political supremacy of democracy but did not destroy the economic supremacy of Greek commerce. Alexander's empire laid the political groundwork for the spread of Greek traders, who followed the Macedonian armies and who became a Hellenistic ruling class, along with the army, among the conquered peoples. Greek cities were founded or strengthened through the Eastern world, and in material wealth the Greek world was more prosperous than ever. This fact doubtless compensated some persons for the loss of political freedom and, indeed, contributed to it. Methods of agriculture, horticulture, stock raising, and manufacturing were improved, and the whole Western world learned the techniques from the Greeks. Athens lost her leadership in economic affairs to such centers as Alexandria, Pergamum, and Rhodes, but the Hellenized trader remained supreme,

and the Greek language became the universal language of business and commerce as well as of intellectual life.

Scientific treatises and handbooks were written to aid in the technical improvement of farming and manufacturing as the need for feeding ever larger numbers of people increased. As improved methods and larger areas of land under cultivation became the rule, the slave class became even more numerous and conflicts raged between lower and upper classes, between urban and rural interests, and between agrarian and commercial interests. The number of free citizens who did not need to work became smaller, but the concept of leisure began to hold a much more important place in the intellectual formulations of the philosophers of the upper classes. The number of unfree persons who did the manual work increased, but their manual labor came to be looked upon as menial labor by the leisure classes, who did not work with their hands. Thus, the groundwork was laid for a distinction between the liberal arts suitable to a free man as opposed to the practical arts suitable to an unfree man. Such a distinction arising out of a nondemocratic and mercantile culture has had untold effect upon the educational theory and practice of the Western world down to our own times.

Religious Institutions

In the primitive Aegean days of Greek history the religious beliefs were akin to those of all primitive tribes, beliefs that certain physical objects and animals had mysterious and divine powers, that a spiritual element in man lived on after life, and that many gods inhabited the heavens and earth, directing the destinies of man. These beliefs were shaped into the classic religious tradition of Greece by the Homeric epics, the *Iliad* and the *Odyssey*, which give a clear picture of the family of Greek gods. Zeus, Hera, Poseidon, Hermes, Aphrodite, Demeter, Apollo, Athena, and all the rest helped to bring about a common feeling of nationality among the various Greek cities and tribes. Each city began to feel especially close to certain of the gods, and all Greeks had a particular devotion to Apollo, the god of light aiding man in his struggle against darkness and evil.

Besides the open and civic worship of the gods many secret and selective cults limited to chosen initiates grew up in Greece. The worship of Demeter took on such a character, and the worship of Dionysus became perhaps the most widespread of all after the seventh century B.C. The ecstatic revels and dances of the Dionysians especially attracted women to the mysteries of the god of suffering and regeneration. When the worship of this cult took the form of extreme orgies, a group of religious reformers appeared who tried to spiritualize and moralize the ceremonies. These reformers became known as Orphics. They emphasized in their

teachings the purification of the soul through a regimen of strict morality and asceticism as a means to everlasting happiness in the next world. The Orphics banded together as a sort of missionary society, traveling throughout the Greek world. Pythagoras was one of the best-known scholars to become associated with them. The Eleusinian mysteries constituted another well-known cult, somewhat similar to that of the Orphics but related to the worship of Demeter.

Thus, religious institutions among the Greeks included two aspects: the "daylight" aspect connected with the worship of the gods of the cities, and a mystical aspect associated with the secret cults open only to the initiates. The civic religion was celebrated in public ceremonials, song, dance, drama, athletic games, and public shrines by means of which the individual citizen found his social identification with his group. The secret societies emphasized the selective character of their membership and special interests of one kind or another related to specific gods or rites. The functional character of the civic religion can easily be indicated by the fact that the temples or homes of the gods were public buildings upon which was lavished the artistic skill of architects, sculptors, and painters. The great works of poetry and drama were often written for competitions held to honor the gods, and such famous athletic contests as the Olympic games were at once civic and religious celebrations. The Acropolis at Athens remains the outstanding architectural triumph of a city-state that was honoring itself in the process of honoring the gods.

Religion thus consisted largely in the performance of accepted and stated ceremonies. When, in the fifth century, the Sophists began to question the authority of the gods and the validity of the public rites, the Athenians felt not only that their cherished religious traditions were being threatened but also that attacks were being made upon their city itself. The conflicts that arose between conservative, traditional religious attitudes toward the gods and a newer, more rationalistic conception of man and the universe continued into the fourth century B.C. and the Hellenistic age.

In the third and second centuries B.C. religion began to lose its civic function and to become more attached to spiritual, abstract, and moral affairs. The concern of religion shifted from public celebrations invoking the aid of the gods in present endeavors to a concern for what was to happen in the next life. Religious writings began to give a picture of what to expect after death and instructions on how to behave. The conception of divinity was gradually separated from specific gods and associated with a general and spiritual idea of the divine. Plato's philosophy surely helped to form this pattern along with the growing awareness of Eastern and Jewish ideas of religion. In general, the new

mood of "otherworldliness" laid the foundations for the growth of Christianity when it was introduced to the Western world.

Generalizations are difficult, but it seems possible that the shift from a "daylight" religion of interest in this world to a spiritual interest in the future life reflected the political shift from a free and vigorous social life to the inhibited political life that occurred when the Greek cities lost their independence under Macedonian and Roman rule. When the civic ideal of the city-state no longer had a vital and all-inclusive meaning for the Greek mind, many of the intellectuals sought refuge and the meaning of life in religious contemplation and mysticism.

THE IDEAS MEN LIVED BY

So much has been written concerning the genius of the Greeks and their contribution to civilization that one more short statement of their dominating ideas is bound to be inadequate. Their achievements, as viewed in the long perspective of human culture both before and after their times, are indeed astonishing, but to accept everything that they created as a blessing is to be uncritical. The attempt, therefore, in the pages that follow is to assess the Greek achievement in the light of its contribution to a democratic way of life and a democratic kind of education. From such a point of view Greek intellectual life cannot be viewed as all of a piece but must be viewed discriminately.

The Greeks took giant strides in becoming critically self-conscious as they approached the problems of the world, of human nature, and of society, relying upon human intelligence rather than upon tradition, superstition, and mysticism. But when they gave final and absolute answers to these problems, their formulations were often accepted so wholeheartedly by future generations that human culture has been saddled with conceptions that have tended to become fixed for centuries. The conception of a well-rounded development of the whole personality of the individual is an ideal that still stirs the imagination. But when this was perverted to a belief in rampant individualism, the necessities of social cooperation were neglected. When the Greek artistic genius created masterpieces of literature, poetry, architecture, and sculpture, all the world paid homage. But when such artistic achievements have been uncritically accepted as the final arbiter of all aesthetic standards, the creativity of more recent centuries has too often been minimized.

When the tremendous achievements in organizing and systematizing knowledge into the disciplines that we know and cherish are duly acknowledged, it still remains true that a thoroughgoing reverence for these achievements often leads to an obeisance toward the classics of the past out of all proportion to their appropriate use in the changed

conditions of today. Plato and Aristotle have been the intellectual gods to scores of generations of educated men since their time, but it can be sincerely doubted whether the lessons they taught have always contributed to the improvement and spread of democracy. It may be questioned whether this is a criterion with which to judge intellectual achievement. The author believes that it is.

Conceptions of the State and of Citizenship

Historic ideal of democracy. One of the most all-inclusive ideas that guided the conduct of generations of Greek citizens was the belief that the state provided the highest means by which the individual could come to the fullest realization of himself. When the conception of the state was limited to warlike concerns as in Sparta, then the individual felt that he could realize himself best by becoming a superb soldier. When the conception of the state, however, was broad and flexible and generous as in Athens, then the individual felt that he himself must become a well-rounded person in order to become a citizen worthy of his state. Just as today, democracy and dictatorship each was leaving its mark upon the personalities of people in Greece, the one generous, free, and devoted to the general welfare, the other narrow, mean, and brutal. The funeral oration of Pericles as quoted by Thucydides and the ephebic oath recited by all Athenian young men as they accepted the duties of citizenship gave the idealized picture of the democratic conception of citizenship. The educational aims and function demanded by these opposing views of the state are startlingly different in kind and can readily be observed in action in their modern counterparts in Europe and America.

As democracy went from victory to victory in Athens during the sixth and fifth centuries B.C., the ideal of citizenship constantly broadened. The ideal of a good citizen as merely one who could fight well gradually yielded to that of the citizen who had developed a personality and character of harmonious proportions. He should be graceful, poised and effective physically both on the athletic field and in everyday life; he should be able to take his part in the musical, dancing, and dramatic activities of public celebrations; he should be able to appreciate the excellences of the singing, acting, and dancing in the public theaters; he should be able to speak effectively in the popular assembly and to discriminate intelligently among the proposals submitted for public decision; and he should be conversant with the intellectual and aesthetic concerns of the day. The man of character and of action, capable of fulfilling all these duties, responsibilities, and privileges of citizenship, was the ideal of the Athenian democracy in the golden age. This is a clearly recognizable ideal for democracy today, but the trouble is that

this ideal was not handed down so effectively as was the aristocratic ideal. The ideal that lived on in men's minds for centuries as incorporated into books by the poets and philosophers was an aristocratic and intellectualized outlook that glorified the man of contemplation rather than the man of action.

Sophists. The above picture of democratic Athenian citizenship is no doubt somewhat rose-colored, for along with the social conception of citizenship went a strong individualistic strain in Greek life that was unleashed when economic conditions in Athens made material wealth a realizable goal for many citizens and when democracy was put upon the defensive in the Peloponnesian War. The desire to perform the duties of citizenship more adequately by improving the ability to speak and think effectively went along with the desire to gain personal power and advantage in political affairs. Teachers, known as Sophists, appeared to minister to both these kinds of desire. It seems clear that the Sophists were both good and bad in their effect. Some doubtless were genuine in their efforts to help men achieve proficiency in rhetoric and oratory; others doubtless were more concerned to gain fees by helping unscrupulous men to argue their own cases whether justified by circumstances or not. The modern legal profession surely manifests both these motives as plainly as the Sophists did. In any case, the cause of individualism was elevated by the practices of the Sophists in fifth-century Athens. When their "practical" teaching concerning citizenship was grounded on ethical common sense, it was beneficial; but when it approached opportunism, it tended to undermine the democratic way of life.

It seems clear that the Sophists not only reflected the growing individualistic temper in Athens but tended to accelerate it. Their arguments went something like this: Since laws and custom are man-made "conventions" that are artificial rather than natural and since the individual man is "the measure of all things," the individual need not be bound by conventional laws for they do not carry universal authority. Individual men should set up their own standards of authority through their own thinking and judgment. Grammar and logic are means by which each individual clarifies his own thinking, and rhetoric is the means by which each individual sets out to change, nay, even to avoid, the conventional laws by making his arguments strong enough to prevail.

Socrates. Against such arguments as these, Socrates arose to do combat in the latter half of the fifth century. He apparently was seeking to define generalized principles of conduct that would be binding upon all men who would be good and just. The measure of all things ethical was to be, not any given man, but only the *good* man. What the good man did was just, and the universal principles of morality could be

discovered if men would only discuss their conceptions and by mutual agreement arrive at general concepts of justice. Men needed to criticize their habits and operating conceptions so they could be refined and reduced to a consistency that would achieve universal consent and validity. In his early life and teachings Socrates operated from a democratic point of view. His belief that universal ideas emerged from the common social life of man seems to embrace the basic democratic tenet of consent, but it is not so clear that Socrates in his old age remained so staunchly an adherent of democracy.

The circles in which Socrates moved and the students who were associated with him in his later days (Alcibiades, Critias, Crito, Aristophanes, Xenophon, and Plato) were obviously aristocratic in their interests and even antidemocratic in their actions. The most common interpretation that Socrates was a liberal who was unjustifiably sentenced to death by the conservative assembly must be leavened somewhat by more recent interpretations, which point out how Socrates' aristocratic proclivities led the democratic assembly to attack him justifiably for his antidemocratic activities.¹ The last word has not been said, but it seems clear that both these extreme interpretations must somehow be reconciled.

In any case, the question is still paramount today how far a democracy can go in allowing itself to be criticized and undermined by those who demand the freedom to criticize it. A basic loyalty to democratic institutions and democratic procedures must surely be asked of those who would criticize it, while at the same time the process of criticism must go on. It may ultimately be decided that the greatest failure of Socrates was his lack of attention to devising a system of citizenship education that would develop the basic loyalties to democracy at the same time as it developed the ability to criticize, which was Socrates' chief glory.

Plato. When Plato began to formulate his conception of the state and of citizenship that was to be so enormously influential for centuries to come, he did it against a thoroughly aristocratic and conservative background at a time when democracy was declining in Athens. Plato, too, was impressed by the excessive individualism of Athenian democracy as well as by the apparent military superiority of the well-disciplined aristocracy of Sparta. It was no wonder then that he devised an ideal state in his *Republic* which was essentially aristocratic and in which all individuals were strictly subordinated to the state. He felt that all people should be divided into three classes, each person doing the job he was best fitted to do. This would be perfect justice. The masses

¹See ALBAN D. WINSPEAR, *Who Was Socrates?* (The Cordon Company, Inc., New York, 1939).

of people would do the work of the world; the courageous and physically fit would do the fighting and protecting; and the intellectually most able would be the philosopher-kings to do the ruling. Good citizenship, thus, was a matter of doing the state's bidding, whether to work, or to fight, or to rule.

Needless to say, this was a denial of the historic Athenian democracy, which had been built upon the democratic principle that *all* citizens should be obliged to work, and protect, and rule the state. It is useless, but nonetheless interesting, to speculate what the history of democracy would have been if Plato's enormously influential abilities had been exerted on the side of democracy rather than of aristocracy. The "Great Tradition," which he helped so much to formulate, might thus have given countless generations of men a predilection for democracy rather than a justification for a state in which the intellectual elite was believed to be the only appropriate ruling class. Plato doubtless did a great service in showing how integral a system of education is to the welfare of the state, but he also doubtless did a great disservice to democracy by idealizing an antidemocratic kind of state. The historic Greek ideal of democratic citizenship would have been a better pattern than that handed down in the books of Plato.

Aristotle. Much the same kind of argument can be made concerning the enormous influence of Aristotle, whose *Politics* has been a textbook in countless schools and higher institutions down to this day. We certainly are indebted to Aristotle for his insistence that the welfare of the individual is inextricably bound up with the welfare of the state. Man as a "political animal" has been a byword of political economy for over 2,000 years, but it must be remembered that Aristotle felt that a good monarchy or a good aristocracy was just as acceptable as a good commonwealth. He, like Plato, had no burning loyalty to democracy. It must be remembered, too, that despite his painstaking and scientific study of politics and his emphasis upon the state as the all-inclusive social institution of man, Aristotle believed that most men are by nature fit only to be slaves and that only the few are by nature fitted to rule.

Further, Aristotle insisted that the highest form of virtue was sheer speculation, contemplation, and exercise of the intellectual abilities. Man as knower was higher in the scale of worthy citizenship than man as practical citizen. Thus, the educational effect of both Plato's and Aristotle's teachings has been to emphasize the cultivation of the intellect rather than the dealing with the practical problems of politics. Some democratic educators of today would term such intellectualism a retreat to the ivory tower of academic interests when what the world needs is an education devoted to social responsibility.

Man and Nature

The Greek genius perhaps expressed itself no more fully than it did in the realm of speculation concerning the origin and nature of the universe. It was in this field of intellectual endeavor that the human mind emerged from imagination into critical reliance upon reason for its answer. Primitive Greeks had much the same conceptions as other primitive peoples concerning the gods who presumably created the earth and controlled the events that took place upon it. They explained various physical phenomena in terms of the actions of the gods, the most familiar of which are the pictures of Apollo driving his sun chariot across the heavens each day and Zeus hurling the thunderbolts of lightning during a storm.

In the sixth century B.C., certain men began to seek new explanations for physical phenomena. The important thing for the history of thought and education is that they began to seek natural causes for physical events. In a real sense an intellectual revolution was taking place along with the political and economic revolutions of this period. These men were no longer content to accept the mythological explanations of tradition but attempted to find consistent natural laws lying behind the observed regularity of physical events. Appearing first in the Greek cities of Asia Minor and later in Athens, such philosophers began to build up a more scientific and rational explanation of the universe, often concentrating upon a single fundamental element underlying all material events.

Thales in his search for logical reasons to explain his observations came to the conclusion that water was the essential characteristic of all matter; he is credited with making geometrical and astronomical observations that led to the prediction of an eclipse. Pythagoras found mathematical consistencies in the movement of the stars as well as in musical tones; he is credited with believing that the stars and earth were spherical in shape. He summed up his speculations in the belief that the essential stuff of the universe was somehow connected with the mysteries of number, a view not entirely unrelated to the assumptions of modern astrophysics. Anaximander estimated that water was the essence of things, that the universe was infinite in size, and that man was a higher form in the long process of evolution; he is credited as the first person to make a map of the world as he knew it. Xenophanes, who founded the Eleatic school in Elea in southern Italy, believed that the world was a unity and that reality was guided by a single god or directing force. Anaximenes found the essence of things in air, and Heraclitus found it in fire.

In the fifth century Heraclitus and Empedocles suggested a theory of evolution based upon their conception that change and flux were the essential characteristics of the universe. Leucippus and Democritus formulated an atomic theory of the construction of the universe that remained substantially as they left it until the scientific developments of the seventeenth century. They gave shape to a philosophy of materialism that was later adopted by the Epicureans. Hippocrates developed the study of medicine to such an extent that his reputation extends down to the present time in the form of the Hippocratic oath, which young physicians take to express their ideals of service to mankind. Anaxagoras felt strongly the impact of change in the physical world and put much emphasis upon this process in the biological and material world, but he represented in his own thinking the age-long conflict between permanence and change that has plagued philosophers to this day. Anaxagoras considered that the world must have some fixed point in the midst of all the evident flux, and he located permanence in the world of mind (*nous*) that lies behind change and gives order to it.

With the advent of Plato in the fourth century B.C., the forces of materialism, relativity, and change received a tremendous setback in the face of his philosophy of idealism, which stressed the permanent, the absolute, and the eternal. Plato was impressed with the necessity of emphasizing the fixed and unchanging character of reality in the universe as well as in political and economic affairs. Thus, he devised an ideal world of spirit in which resided all eternal, fixed, and permanent ideas of the physical as well as of moral and intellectual affairs. This world of ideas contains universal patterns of truth, goodness, justice, and beauty, which give form to the everyday world about us. This everyday world is the realm of matter, where individual things exist, are created, grow, decay, and are destroyed. The world of spirit is ultimate reality that is never destroyed, but the world of matter is a shadowy, fleeting world of change and instability.

Just as the state is an all-inclusive idea to which all individuals are subordinate, so are all individual things merely imperfect copies subordinate to the eternal forms of things. To take an example from mathematics that so impressed Plato, the idea of a circle is eternal and never changes. Specific, individual circles that man can draw or use are always imperfect and can be destroyed, but the idea of a circle is always there in the spirit world, untouched by human manipulation. The same is true of all physical objects, such as chairs, tables, and houses. Man can make many different kinds of chairs, but it is only because they partake of the eternal idea of "chair-ness" that we can recognize them all as chairs. Finally, then, the same is true of justice, beauty, and

goodness: men are just and good only as they partake of the eternal ideas of justice and goodness.

From the foregoing it is possible to gauge how profound an influence Plato's idealism has had upon all Western thought down to our own day. The man in the street responds (at least intellectually) to appeals to forsake the passing fancies of material interests for the eternal values of spiritual affairs. He does so because his whole outlook has been shaped in a considerable degree by the influence of Plato, which was absorbed by the Christian tradition and channelized into Western thought. It seems clear that Plato helped significantly to turn men's attention away from investigation of the physical world because he deemed it in his philosophy to be of definitely subordinate and inferior importance.

It is again interesting to conjecture whether the modern science that emerged in the sixteenth and seventeenth centuries would have appeared much sooner if the intellectual classes for centuries had not been so engrossed in the speculations concerning the supernatural world initiated by Plato. Although the stream of scientific investigation of nature was never completely dried up, the main rivers of intellectual effort were following a course laid out by Plato, a course they were to follow until the beginnings of modern times. The centuries-old indifference of education to science can be attributed in large part to Plato, supported by the Christian church.

Aristotle followed in large measure in the philosophic footsteps of Plato, despite his much greater concern with physical and biological science. The whole universe, according to Aristotle, is made up of "form" and "matter" integrally bound up together. Form is the active life principle that gives shape and meaning to material things, much as the design or plan of an architect gives form and meaning to the materials that eventually become a house or a bridge. The form exists in the mind of the designer prior to matter, and yet it has no material existence until combined with matter. Aristotle did not set up two worlds of separate existence as did Plato, for he believed that the general, eternal form appears *only* when expressed in the shape of individual things.

This outlook shows Aristotle's greater interest in the things of this everyday world of nature, but his impact upon future thought was for long not very different from that of Plato, for his scientific works were lost to western Europe for some 1,500 years before they were generally known. Because his scientific works were not well known to the scholars of Rome and the Middle Ages, Aristotle exerted less influence upon education than Plato prior to the thirteenth century.

Human Nature

Fully as important in their effect upon later times, and perhaps even more obviously related to education, are the conceptions of human nature of Plato and Aristotle. In each case their views of human nature correspond closely to the views of the universe just described. Plato set up a theory of human nature to fit his political and economic arrangements as well as his metaphysical philosophy. Just as the universe is divided into a spiritual and material world, so does human nature consist of spirit (soul) and matter (body). The human soul is eternal, changeless, and nonmaterial, whereas the human body is born, grows, decays, and is destroyed, as do all things of change and imperfection.

Plato's physiology and psychology were worked out into a neat three-fold scheme. Inhering chiefly in man's belly are the appetites, feelings, and desires that seek bodily satisfaction. Residing primarily in the heart or breast are the manly drives of courage, endurance, and will. Centered in the head is the highest aspect of man, his reason, or intellect. The intellect is the only part of human nature that is primarily related to the soul; the other parts are closely related to the body. In Plato's *Republic* men who act solely in response to their appetites are fit only to be workers, those acting chiefly upon the qualities of courage and hardihood are fit to be the fighters, and only those who act according to the dictates of reason are fit to be the rulers, or philosopher-kings. Thus, human nature is determined entirely by heredity and is fixed from birth. Indeed, the soul is immortal and has existed from all time along with the eternal ideas of the spiritual world. Here again it should be pointed out how fully this view of human nature has been absorbed by the Christian tradition and has come down to us.

Aristotle's conception of human nature is somewhat similar to that of Plato. Analogous to his view of the world, men were conceived by Aristotle to be made of form (soul) and matter (body). Aristotle's scientific studies led him to make more of the relationship of human life to lower levels of life. For example, human nature is a compound of vegetative, animal, and human characteristics. He uses the word "soul" virtually to mean life. Hence, man has a "vegetative" nature that grows, reproduces, decays, and dies as plant life does. Man also has an "animal" nature that has desires, sensory impressions, and active movement as all other animal life has. But, in addition, man has a distinctively "human" nature that no lower form of life has, namely, the reason. As is so often said in Aristotle's words, "Man is a rational animal." The reason consists of (1) a lower, or practical, reason by which man makes ethical and practical decisions concerning conduct and (2) a higher, or theoretical, reason by which man acquires universal and eternal knowledge

and truth. Quite logically, then, Plato and Aristotle assigned to education the task of developing the highest elements in the hierarchy of human nature, namely, the faculty of theoretical reason and contemplation.

Learning and Intelligence

The learning process, according to Plato, corresponds to the nature of man and of the universe. True knowledge cannot be achieved through the bodily senses, for the body is imperfect, guided as it is by its appetites and dealing as it must only with the changing, shadowy realm of experience. The body is virtually a prison house that confines and deludes the reason. A slightly higher but still imperfect knowledge is acquired by those whose hearts dominate their actions. This group can have opinions that are better than sense impressions, but their opinions still are filtered through the body and thus do not rank as true knowledge. Knowledge, properly speaking, is acquired only by those whose intellect, or reason, has been able to cast off the shadows and shackles created by sense experience and opinion.

True knowledge comes only from the spiritual world of eternal and changeless ideas, and this knowledge is innate in the immortal soul, which has dwelt in the spiritual world before being incased in the mortal body. Knowledge is thus acquired, not by sense experience, but by a process of reminiscence by which the intellect remembers what it knew before its association with an imperfect body. To remember perfectly the intellect must rigorously close the windows of the body to the external world and open only the windows of the intellect so that it may look upon and contemplate eternal truth. Intellectual discipline of the strictest kind, achieved with the help of mathematics and philosophy, is the only true road to knowledge. Here, then, is the basis of that intellectualistic conception of the learning process which has dominated educational procedure almost down to the present time and which is still strongly urged by prominent educators in America today.¹

Despite Aristotle's emphasis upon sense experience as a road to knowledge, his influence has been largely the same as that of Plato because of the hierarchy of intellectual virtues that he built up. Aristotle, as did Plato, put much emphasis upon learning good character habits; but he emphasized also the intellectual virtues as the highest values of man, and therefore "cultivation of the intellect" has been singled out by his followers as the prime method of learning. It is often forgotten, however, that he made much of sense experience and scientific induction as proper roads to knowledge, even to universal truths. Educators, like everyone else, are selective in their use of the past. When

¹ See, for example, ROBERT M. HUTCHINS, *The Higher Learning in America* (Yale University Press, New Haven, 1936).

they found Aristotle saying that the theoretical, or speculative, reason was the *highest* virtue, they often neglected to notice that Aristotle also emphasized the practical reason by which wise moral decisions are made. The traditional view of Aristotle has thus focused upon contemplation of "first principles" or "final causes" as the source of eternal and absolute truths to be achieved by the study of mathematics and metaphysics. The weight of Aristotle's authority has been used to emphasize the learning process as an exclusively intellectual process with an educational program made to fit it. Intellectualism in education is one of our living traditions that most needs to be reexamined., .

The Social Role of the Arts and Sciences

The increasing respect for the "intellectual" side of life as over against the "practical" or everyday aspects of life laid the groundwork in Western culture for the distinction that has been maintained to a greater or lesser degree ever since between the "liberal arts" as opposed to the "practical arts." Just what steps were taken during the Greek period to emphasize the liberal arts in education will be discussed in the next chapter, but the general point should be made here that the Greek period displays vast gains in the practical arts along with the liberal.

Practical and liberal arts. Beginning in Homeric times and developing more rapidly from the seventh and sixth centuries onward, the Greeks made great strides in advancing the knowledge and practice of shipbuilding, navigation, toolmaking, mining and engineering, construction of buildings, manufacture of goods and household effects, and agriculture. Greek ships and Greek sailors learned from the arts of the Phoenicians, improved upon their arts, and finally outstripped them. They borrowed from the East technical skills in toolmaking, weapon making, metalwork, and pottery work, but they improved upon those skills both technically and artistically, giving them their own character and individuality. Their skill in architecture was fully as much a technical ability to work the stone and construct the edifices as it was an aesthetic work of great beauty. The same is true of pottery making, in which their artistic skill in painting household objects of everyday use was closely linked with their skill in fashioning the shapes and improving the quality of the objects. It detracts not a whit from the artistic achievements of Athens to insist that they depended in large part upon the improvements in the toolmaking and stoneworking skills of the lowly artisan and craftsman. The artisan was not only a skilled master of his craft; he was also an artist, whether potter, sculptor, jeweler, woodworker, leatherworker, or metalworker.

There is much evidence that in the Hellenistic age city planning on an advanced scale was practiced in many places, again combining the

arts of the craftsman and the aesthetically minded. The effort to improve city planning sprang from the new conditions of urban life that grew up in Hellenistic times. As people flocked to the cities and became producers of manufactured goods rather than producers of foodstuffs, the problems of agriculture and stock raising took on a new significance. Handbooks of scientific farming were written, embodying the experiences of dirt farmers and stockbreeders. Innovations were made in irrigation, rotation of crops, and fertilizing methods, improvements were made in vinegrowing and the cultivation of olive trees, and new breeds of animals were crossed with the more familiar kinds.

Informal apprenticeship remained the basic means of handing on technical skills and improving them. These skills and crafts were never organized into systematic bodies of knowledge with the conscious aim to improve them in the way in which the liberal arts were systematized. It was largely because the liberal arts *were* organized into systematic bodies of knowledge that they achieved preeminence over the practical arts. This fact was largely due to the interest of the Sophists, Plato, Aristotle, and their Hellenistic followers in these fields rather than in the crafts. The weight of written materials in a field of human activity is undeniably enormous in commanding respect in the academic and educational world. Education became identified with those bodies of knowledge which were organized and systematized and were thus made ready for teachers to hand down to students.

Language arts and literature. In Aegean times several Greek dialects can be identified, the most important of which eventually was the Ionian dialect associated with Attica and Athens. Through a long period of refinement Attic Greek emerged as the dominant language of the Greek world and was spread throughout the whole Mediterranean world during Hellenistic times as the language of diplomacy, trade, and education nearly everywhere. After a long period in which the Greek tongue was influenced by native dialects and Eastern languages, especially the Phoenician, a series of poets and writers began to give form to the Greek language, and this process was eventually refined to such a point that specific attention was given to grammar and rhetoric as distinguishable bodies of knowledge.

Grammar as a subject of inquiry and study was stimulated in the fifth century by the interest of the Sophists in response to the new conditions of life already described. Protagoras and Prodicus, especially, began to give attention to the precise meanings and usages of words. They and others began to study how the language made use of tense, gender, mood, number, etymology, and syntax and to formulate rules for a correct grammatical usage. The emphasis that Socrates and Plato and Aristotle all put upon the necessity of accurate definitions and classifica-

tion stimulated further the study of grammar. In the Hellenistic age scholars at Alexandria and elsewhere worked assiduously at formulating the eight parts of speech and in constructing dictionaries and reference books to help standardize the language.

Rhetoric as a special study was also stimulated by the democratic life of fifth-century Athens, especially by such Sophists as Protagoras, Prodicus, Hippias, and Gorgias. Not only was a strong interest shown in the meanings of words and correct usage, but also a growing interest in the ability to use the language with fluency, ease, grace, and persuasion. This latter interest became the focus of the study of rhetoric, as expressed in writing the language and more particularly in the ability to speak it effectively in the form of oratory and forensics. Isocrates was a great teacher of rhetoric who added much to the refinement of the study as a body of knowledge, as did Demosthenes and Aeschines through the quality of their speeches, which became models of rhetorical skill and usage. Aristotle contributed enormously to setting the patterns of rhetoric for future centuries in his book entitled *Rhetoric*, which has been used by generations of American as well as European students.

Literary forms of many kinds were virtually created by the Greeks, and their achievements in many of these forms were so high that they are often used as models to this day. The epic poetry embodied in Homer's *Iliad* and *Odyssey* was handed down for centuries by word of mouth, was finally refined and written down, probably sometime during the ninth or eighth century B.C., and was worked upon further in Hellenistic times, when the folios were edited and corrected with painstaking care. Lyric poetry also found expression in the works of Sappho, the first famous woman poet, Theognis, Terpander, Hesiod, Pindar, and many others. In fact, most of the early Greek writings of all sorts, philosophical and scientific as well as literary, were written in poetic form. The lyric poetry reflected the loves, struggles, hopes, and despairs of everyday life and gave glory to the gods and man. Growing out of the Dionysian festivals and other civic tributes to the gods the poetry of tragedy took exalted form in the dramas of Aeschylus, Sophocles, and Euripides, who portrayed the fundamental conflicts of man as they arose from the contemporary life of the times. Comedy also played its artistic and political part in the biting and satirical poetry of Aristophanes. Aristotle, in his turn, influenced literature and literary criticism through his work, the *Poetics*.

In the Hellenistic age new literary forms made their appearance. Mimes appeared, to mimic and parody the everyday life of the times, dwelling especially upon love and humor. The diatribe blasted the follies, foibles, and injustices of the times. The idyll, exemplified in the works of Theocritus, portrayed the peaceful and perfect life of the coun-

try as opposed to the rush of the city. Fables, taking lasting form in the hands of Aesop, and epigrams, epitaphs, eulogies, and romantic stories of the past were other literary forms that received much attention. In addition to these creative aspects of literature the Hellenistic scholars gave an enormous amount of time and effort to editing, commenting upon, and criticizing the literary works of others in the scholarly mood of the age—in a way the first Ph.D. approach to literature. Among the editorial and scholarly activities carried on at Alexandria was the long process of translating the Old Testament into Greek, a work known as the Septuagint because it was done by some seventy scholars over a period of many years in the third and second centuries B.C.

Philosophy. The first thing to be noted about the development of philosophy is the all-inclusiveness of the interests of the Greek philosophers. They ranged over nearly all the fields of knowledge that have since been subdivided and broken down into physical and biological sciences, mathematics, social science, and psychology as well as the more technical fields of philosophy—logic, metaphysics, epistemology, and ethics. Philosophy included all that the philosophers thought about and wrote about. The Ionian philosophers in the seventh and sixth centuries B.C. were principally interested in the physical world, whereas the philosophers of the fifth and fourth centuries were interested not only in nature but also in man and his conduct in many fields of activity.

Logic, sometimes called dialectics, was created as the Greeks sought to analyze the processes of thinking and devise rules for its conduct. Along with their interest in grammar and rhetoric, the Sophists set in motion earnest effort along this line, and Socrates carried the quest to a high state of perfection in his dialectical method of discussion through questioning and answering as a means of arriving at and testing truth. Plato gave a different cast to the meaning of "dialectics" when he used the term to refer to the process of contemplating reality in the form of the eternal ideas of the spiritual world. Aristotle gave a pattern to logic that ultimately became authoritative, remaining so for centuries and in fact until almost yesterday. His work entitled the *Organon* set the pattern for deductive logic so rigorously that it is known today as Aristotelian or formal logic.

Metaphysics (the study of the ultimate reality of things) and epistemology (the study of the theory of knowledge) were elaborated especially in the writings of Plato and Aristotle, who put much emphasis upon these studies and set them highest in the scale of valuable bodies of knowledge. Centuries of philosophers since then have considered them in the same light. Inextricably bound up in Greek philosophy were conceptions of human nature and human conduct represented by

the modern subjects of ethics, political science, economics, and psychology. The Sophists and Socrates focused great attention upon the latter subjects, as did Plato in his *Republic*, *Laws*, and other dialogues and Aristotle in his *Ethics* and *Politics*.

Science. Great strides were made by the Greeks in organizing the study of the physical world and of the living world of plants and animals into a form that modern scientists would classify as astronomy, physics, mineralogy, botany, and zoology. The early philosophers of the seventh and sixth centuries B.C. started the process that was carried on through the fifth century down to Aristotle's epoch-making studies of the fourth century, in which he virtually classified all known knowledge in the above-mentioned areas. The work of this great classifier and encyclopedist was carried on by Hellenistic scholars, the most important of whom were Hipparchus and Aristarchus in astronomy, Eratosthenes in astronomy and geography, and Archimedes in mechanics and hydraulics.

As a result of the efforts of these men and many others, enormous advances were made toward a scientific understanding of the world and of natural phenomena. The theory that the world was round and rotated on its axis was enunciated, the earth was measured, the solar system was studied, the heliocentric theory was formulated, and the procession of the stars and their distance and sizes were observed. In addition, considerable work was done in physiology and anatomy, especially at Alexandria, in determining the function of the brain as the center of the nervous system and the principles of the circulation of the blood.

Mathematics. Closely related to the work in science went remarkable progress in the field of mathematics. Arithmetic gained great popularity because of its value in commercial affairs, but it also was refined and elaborated by the Pythagoreans and Plato, who were interested in the theory of numbers for the philosophic insight and discipline of the mind that it was supposed to produce. Geometry also received increased attention from the Pythagoreans, Plato, Aristotle, and others. Euclid in the third century B.C. organized and systematized all the known geometrical theorems so carefully that his work remained the authoritative study in the field down to the nineteenth century. Trigonometry was also being put into organized form for the first time.

History. Out of the legendary tales concerning the historic past of the tribe emerged the first writings of a semihistorical and seminarrative sort. Legendary stories were woven together with the tales of travelers to strange lands, at first in verse and then in prose, but with Herodotus the real beginnings of history writing were made. Herodotus traveled widely and earnestly collected what historical data he could on the countries he visited. Because of his painstaking history of the Persian

Wars, published in 430 B.C., he has been called the "father of history." Thucydides in his history of the Peloponnesian War went much beyond Herodotus in that he not only attempted to put the facts accurately in chronological order but tried to explain their causes as fully as he could. He really introduced critical scholarship into the writing of history and placed it on a high level as a means of interpreting human events and social forces. In the writings of Xenophon in the fourth century history lost much of its objective and painstaking character and became more rhetorical and less scientific in aim. Many other historians became interested in the history of their countries or rulers, especially of Alexander the Great. Their stories and biographies show varying degrees of excellence; outstanding among them was Polybius, who wrote the history of Rome in the third and second centuries B.C.

Art and music. The Greek creative genius expressed itself no less in artistic achievements than in the fields mentioned in the foregoing pages. Art and music were integrally bound up with the religious, civic, and everyday life of Athens in a way seldom approached in other civilizations. Music, dancing, poetry, and drama were linked together in the religious festivals that emerged from the Dionysian rites and culminated in the tragedies of Aeschylus, Sophocles, and Euripides. Architecture, sculpture, and painting were intimately related in the temples and public buildings of the city-states, reaching highest perfection in the Acropolis at Athens. Painting attained a high level in the decoration not only of temples and sculptured figures but also of vases and pottery in common use.

The Greeks felt that art and music were closely related to good moral qualities, and thus they insisted that a good man and good citizen was one who could participate actively in the artistic life of the city whether in religious celebrations, theater festivals, or everyday affairs. Music and poetry contests were as eagerly entered and attended as were athletic contests, both being a part of such festivals as the Olympic games. Plato and Aristotle stressed the moral effects of art and music, Plato in the *Republic* and other dialogues and Aristotle in his *Poetics*, a treatise on the theory of art and aesthetics.

The artistic side of Greek life began to lose something of its social character in the Hellenistic age, when much of the art effort went into the building and decoration of mausoleums and monuments to the Hellenistic kings rather than into the adornment of the public buildings of a democratic people. The technical skill of the Hellenistic age, however, reached a high point in the realistic statues of the human figure. The idealized representation of civic gods and heroes as portrayed by Myron, by Polycleetus, and, above all, by Phidias in the fifth century began to change to a realistic expression of human and emotional feel-

ings as portrayed by Scopas, Praxiteles, and Lysippus in the fourth century B.C. The problem of movement and dynamic representation appeared strongly in the sculpture of the third and second centuries B.C. as suggested in the tortuous agonies of the Laocoon group.

As was the case with the practical arts and crafts, the "fine" arts were not organized into systematic bodies of knowledge that could be taught easily in the schools. This fact, combined with the growing intellectualistic and bookish interests of the educated classes, led to a diminishing emphasis upon art in the education of Greek citizens. The only exception was music, which came to be justified as a study of intellectual worth because of its mathematical content as emphasized by Plato and Aristotle. Even here the practice or playing of music was disparaged as against the theoretical study of its mathematical quality. The arts as a subject of instruction lost ground in Hellenistic times just as gymnastics and physical development were minimized as unfit subjects for the liberal education of a leisured upper class in a society that had lost its political freedom and democracy.

CHAPTER III

EDUCATION IN ANCIENT GREECE

During the Greek period, education lost its primitive character and took on institutional forms that set the broad patterns for schools for centuries to follow. The differentiation of political institutions prepared the way for differentiated educational institutions. The Aegean age and the Homeric age exhibited educational agencies that were essentially primitive in character, as described in Chap. I. In the seventh, sixth, and fifth centuries B.C. the school as a separate educational institution began to take form, and in the fourth, third, and second centuries B.C. the schools became institutionalized at elementary, secondary, and higher levels that are roughly analogous to modern levels of education.

ORGANIZATION AND CONTROL OF EDUCATIONAL INSTITUTIONS

As the institutional basis of life lost its tribal character and began to center in the city-state, education also lost its informal tribal character and became political in form and content. Somewhat the same process took place in Egyptian, Babylonian, and Jewish cultures, but the Greek development differed in important ways. Whereas the formal character of schools did appear in Egypt and Babylonia, the schools were nevertheless basically personal in character; that is, the schools trained people for service to the pharaoh or king or emperor, who literally was the state. Among the Jews, schools were set up for dominantly religious rather than political purposes. Only among the Greeks did education become for the first time an instrument for the making of citizens. This meant that the dominant character of the state and the ideal of citizenship shaped the character of education as never before. The close identification of educational practice with political practice can reveal to us some of the advantages and dangers that modern education encounters in its relationships with the state.

State Control in Sparta

As Sparta emerged from a primitive tribal society into an aristocratic military dictatorship, the state quite naturally began to control educa-

tion rigidly for its own purposes just as it controlled all the other aspects of life in Sparta. The *ephors*, or ruling magistrates, in Sparta had general supervision over educational agencies along with their other civil and military authority. They exercised this supervision directly until they appointed a special educational officer known as the *paidonomus*, who took direct charge to see that regulations were carried out. In this way Sparta set up what was virtually a state system of education under strict state control for state purposes. The Spartan child (that is, the child of a citizen) was considered as belonging to the state from birth to death.

At birth the Spartan boy was brought before the *ephors*, who decided whether he seemed sufficiently healthy to become a strong warrior and citizen. If the infant seemed sickly or weak, he was likely to be exposed on the mountains to die or to be taken by a foreigner or Helot to be brought up as a tradesman, worker, or slave. The process of elimination of the unfit was thus begun at birth. If the child passed muster, he was taken home to be brought up by the mother and father until he reached the age of seven. For these first years the mother had general charge of the upbringing of the child as in any other society, the father gradually inducting the boy into the ways of adult society by teaching him the moral characteristics deemed necessary. The child thus learned to see and appreciate the hardships and qualities of life that adult men had to endure in their daily activities of preparation for war.

At the age of seven the boy was placed in a boarding-school type of institution that amounted to a public barracks, where he remained until eighteen. During these years the boys lived a semimilitary existence in which they were organized into bands or packs under the leadership and authority of young adults. The boys ate together, slept together, played and worked together, and in general followed the common life of soldiers. Military organization was always the order of the day, headed by the *paidonomus*, who had the authority of command, discipline, and punishment.

At the age of eighteen the boys were given 2 years of intensive military training in which they operated closely under the supervision of the army. Then for 10' years from the ages of twenty to thirty the young men were active members of the army, engaging in the offensive and defensive wars of the country. At the age of thirty they became full-fledged citizens and were compelled to marry for the good of the state, but normally the men continued to live in barracks as a standing army while they engaged in the duties of citizenship, which included a large share of training the boys and young men for a like existence.

Young girls were kept at home along with the boys until the age of

seven. When the boys left for boarding school, the girls continued to live at home, but they were likewise organized into packs. These packs were the means of giving the girls physical training and building up their bodies so that they might bear and rear strong sons for the army. They were also given training for household duties connected with the rearing of children and the control of household slaves. In general, they enjoyed a relatively high status in a community that regarded women as essential cogs in the maintenance of a military machine.

The analogy of this type of organization and control of education by the state to the systems set up by Nazi Germany and Fascist Italy in modern times will be apparent to all. The Nazis and Fascists saw as clearly as did the Spartans that the development and maintenance of a military dictatorship depended in large measure upon having complete and exclusive control over the life of its children. The various age levels of youth organizations in Germany and Italy had many parallels in the Spartan system, along with the dominant military ideal for boys and the childbearing ideal for women as feeders for the military man of the state. Here are supreme examples of the importance of education as a determining factor in building the kind of society that the leaders of the society wish to see maintained. Sparta never changed very greatly, because its education was so effective. Nazi Germany and Fascist Italy will never be genuinely altered, despite military defeat, unless their education is changed.

Private and State Control in Athens (700 to 300 B.C.)

As might be expected from the more flexible political and economic arrangements in Athens, the Athenian state did not exert the complete kind of control over education that was characteristic of Sparta. The stronger sense of individualism in Athens seemed to leave the provisions for education more fully in the hands of parents than was the case in Sparta. Nevertheless, there is evidence that the state did concern itself with education in some respects. The complete picture of educational control in Athens is, however, far from clear. The broader conception of citizenship that emerged in Athens, as described in Chap. II, led to the establishment of a far greater variety of schools than appeared in Sparta. Each of these schools was designed to cultivate a phase of the all-round development that the Athenians deemed necessary to enable a citizen to fulfill suitably all his responsibilities to the state. The more urban character of life with its attendant commercial class also gave Athenian education a cosmopolitan and varied scope that was never reached by the rural and agricultural society in Sparta.

Early Athenian education (700 to 400 B.C.). Just when the first formal schools appeared in Athens is not certain, but we do know that

several educational laws have been attributed to the lawgiver Solon in the early part of the sixth century B.C. The presumption is that schools of some sort existed as early as the seventh century and that schools were rather widespread by the end of the Persian Wars in 480 B.C. It is probably true that before Solon's time some schools already existed concerning which he made the regulations attributed to him. Whether he formulated the laws or not, the state by his time had begun the practice of paying school tuitions for boys whose fathers had been killed in the armies. These were probably among the first educational benefits for families of veterans. Other state regulations concerning education apparently compelled parents to see that their sons learned their letters and acquired the ability to swim. The state also appointed a public supervisor for education, and at some time the law required parents to see that their sons were given an elementary education in gymnastics, letters, and music.

Other general regulations of the state dealt with somewhat obscure requirements concerning the size of schools, the admission of boys to school, the age of admission, the compulsory assignment of a pedagogue to each schoolboy, and the prevention for moral reasons of adult men from becoming too closely associated with the young boys in the school-rooms or gymnasiums. The state further entered into the support of education by building and maintaining at public expense the principal gymnasiums in Athens, where the boys and men engaged in athletic contests and exercises. It is apparent, therefore, that the state was concerned with the organization and control of educational institutions in Athens, and it is entirely possible that many other regulations were passed and influence exerted by the state in addition to the particular laws of which we now have knowledge.

No matter to what extent the state participated in Athenian education, however, it remains true that, in general, the elementary schools when they were set up were run by private teachers who accepted a fee or tuition for the instruction of their students. The state did not establish public schools in the modern sense at public expense, nor did it pay teachers' salaries, nor did it require compulsory attendance at specific schools for a specified length of time. Three kinds of elementary teachers appeared in Athens during this period: the teacher of letters (grammatist), the teacher of music (citharist), and the teacher of gymnastics (paedotribe). What these teachers taught will be discussed in the next section of this chapter. The important thing to note here is that no rigid system of schools existed. It is perhaps more correct to speak of Athenian teachers than of Athenian schools; where the teacher was, there was a school. Parents selected a teacher and sent their boys to him.

Sometimes a teacher of letters and a teacher of music would set up their establishment together so that boys could acquire both kinds of instruction at the same place. The most popular teachers seem to have been those of letters and gymnastics, and the evidence shows that often a boy would spend part of the day with the literary teacher and part of the day with the gymnastics teacher in the palaestra. The school day was long, often lasting from sunrise to sunset. Public opinion was the most potent force impelling parents to have their sons educated.

Advanced education beyond fourteen or sixteen was achieved by attending the public gymnasiums for further physical development and by studying with Sophists for further intellectual development. Three gymnasiums were provided at public expense in Athens. The Academy was the oldest and in a sense catered to the most aristocratic elements in Athens; the Lyceum was founded in the fifth century by Pericles in response to the democratic movements of the day and catered particularly to the newly enfranchised citizens from the commercial and artisan groups of citizens; the Cynosarges catered to the metics, who had not achieved full rights of citizenship. Each gymnasium was under the direction of a public official known as the gymnasiarch.

During the political, economic, and intellectual ferments of the fifth century B.C. the traveling "wise men," or Sophists, gave opportunity for private instruction in a wide range of subjects to be noted later. The Sophists taught for a fee, and young men who could afford to pay the fees sought out the teacher they wished to listen to. Modern historians have applied the term "secondary education" to the instruction offered by the gymnasiums and Sophists, but this is something of an anachronism, for the ancient Greeks in this period had no clear-cut formulation of a system of education as we know it in modern Europe or America. It is probably better to speak of these kinds of instruction merely as advanced education beyond the elementary levels. It was all very informal and lacked the kind of prescription, curriculum, degrees, or diplomas that have become customary in modern times.

Military training was a final kind of education that was very common and quite popular for the youth of the citizen class who had reached about the age of eighteen. Whether this type of training was compulsory before the fourth century B.C. or not is something of a matter of debate, but in any case it seems clear that it was common and highly regarded. Growing out of the gymnasial training the youth normally would engage in 2 years of service as a cadet (*ephebos*) in the army; at the end of this time he would enter into full citizenship at a public ceremony. Even during the Persian and Peloponnesian Wars, the individualistic nature of Athenian democracy apparently had left a great deal to voluntary service in the armed forces of the city. This arrange-

ment seems to have worked very well because of the common expectation that a responsible citizen would engage in military defense of the city-state. As the Peloponnesian War continued, this expectation was weakened somewhat, for the young men grew more interested in the intellectual delights of the Sophists' teachings. As the democracy began to weaken under totalitarian attacks by Sparta from without and individualistic excesses from within, regard for the Sophists naturally diminished. This clarifies somewhat the feeling toward Socrates when he was condemned as a Sophist. In the fourth century Athens took steps to make military training compulsory—when it was too late to preserve Athenian independence.

Later Athenian education (400 to 300 B.C.). During the fourth century B.C. elementary education revealed no such marked changes as did advanced education in Athens, but the foundations were being laid for a more systematic institutionalizing of education and for greater state control, both of which came to considerable fruition in Hellenistic times. The informal teaching of the Sophists gave way in the fourth century to institutionalized schools for advanced education in philosophy and rhetoric as represented by the establishment of the Academy founded by Plato, the Lyceum founded by Aristotle, the school of the Cynics founded by Antisthenes, and the rhetorical school founded by Isocrates. The first three of these schools were set up near the three public gymnasiums of Athens, from which they derived their names. Each became somewhat monastic in its emphasis upon selected members, or initiates, who made up the inner circle somewhat along the lines of modern fraternal orders. Many of the members lived together according to regulations accepted by all, and they sought recruits from the students who were attracted to Athens by the fame of the schools. The foundations for "higher education" were being laid as the philosophical schools incorporated much of the monastic ideal of the earlier Pythagorean and Orphic cults and forecast the monastic ideal of the Christian Era.

Increasing state control of education was evidenced in the establishment of the Ephebic College in 335 B.C. by the Athenian assembly. Under the regulations Athens made compulsory military training for all citizen youth between the ages of eighteen and twenty. Such training was to be controlled and supported by the state. At the age of eighteen each youth had to prove his legitimate birth as a citizen and enter his name on the register of his deme; his hair was cut; and he donned a uniform and was inducted into the Ephebic College. The establishment of compulsory military training grew out of the recommendations of Plato and Xenophon, who had been impressed by the effectiveness of the armies of Sparta, which had long required military training of all

citizens. The movement was brought to a head by the Battle of Chaeronea 3 years earlier in 338 B.C., when Philip of Macedonia had utterly defeated a combined force of Athenian and Theban armies. The hesitancy of the democracies, then as now, to accept compulsory military training was overcome by the attacks of an aggressor nation, but it was too late to marshal the forces necessary to beat off the invader.

Growing State or Civil Control in Hellenistic Times (300 to 150 B.C.)

During the third and second centuries B.C. education became more systematized than ever before, and state or civil control exerted itself increasingly in many ways. The three modern levels of education, elementary, secondary, and higher, began to take more definite shape. As less and less attention was given to gymnastics and music for younger boys, the school of the grammarist became the common type of elementary school. With the organization of various subject-matter fields as noted in the previous chapter, the school of the *grammaticus* came to be recognized as the accepted secondary school for boys from about thirteen or fourteen to sixteen or eighteen years of age. Noteworthy, too, was the disappearance of gymnastic or physical education. Beyond the school of the *grammaticus* the forms of higher education centered in the various schools of philosophy and rhetoric.

Here, then, was the establishment of educational institutions in the form that was carried over into the Roman Empire and passed on to modern Europe by the Christian church. In general, the institutionalizing of education paralleled the rise of distinguishable bodies of organized and systematic knowledge. Even the Ephebic College, which had been set up primarily for military and physical training, took on a more intellectual content around 300 B.C.; in following years, not only was the requirement for military training reduced to 1 year and then made voluntary, but also requirements in philosophical and rhetorical studies were made part of the curriculum. The Ephebic College thus lost its military quality and also its democratic, civic quality and became somewhat of an aristocratic and fashionable semimilitary academy.

To broaden our view now to include the whole Hellenistic world beyond the walls of Athens, the evidence seems clear that public support and control of education were on the increase. Many cities chose administrators of schools, either appointed or elected, who were somewhat similar to modern superintendents of schools. Teachers were appointed by the state, their salaries paid out of public funds or from the income of private endowments, and general supervision of the curriculum was exercised.

Higher education also received great stimulus during Hellenistic times. Athens remained a great intellectual center. In addition to the

Academy, Lyceum, Cynosarges, and the rhetorical schools founded there in the fourth century, two new schools were founded at the beginning of the third century B.C. Epicurus opened his school in a garden, from which the Epicurean school derived its name, the Gardens. Zeno opened his school in the portico of a building, from which his school became known as the Stoa (from the Greek word meaning porch) and his philosophy as Stoicism. Collectively, these schools were quite influential and attracted thousands of young men to Athens over the centuries. Some modern historians have applied the term "University of Athens" to this collection of schools, but this is somewhat of a misnomer, for few of the institutional forms associated with modern universities were present. The university organization as we know it is essentially medieval in origin, stemming from the thirteenth-century universities.

In Hellenistic times other cities arose to compete with Athens as cosmopolitan intellectual centers. At Alexandria in Egypt the Hellenistic kings established a great library and museum for the carrying on of advanced study and research. Other cities that became famous for their libraries, museums, and schools of philosophy and rhetoric were Pergamum, Antioch, Rhodes, Tarsus, Smyrna, and Halicarnassus, in addition to many others. Most of these institutions were founded and supported by the Hellenistic kings, often to glorify themselves, but the effect was to stimulate state interest in higher education as a preparation for the further steps taken in the same direction by the Roman emperors. Often the presiding officials and teachers were appointed, paid, and controlled by the Hellenistic kings. By the end of the Hellenistic period, schools and higher institutions were so widespread that a quite considerable reading and educated public probably existed. Hellenistic education laid the groundwork in content and organization for the Roman educational system, which was patterned upon it and which in turn laid the foundations for the educational institutions of the medieval and modern world.

Democratic and Aristocratic Elements in Greek Education

No easy generalizations can be made concerning the democratic or aristocratic elements in Greek education. It is too easy, for example, to say that all aspects of Spartan education were aristocratic and all aspects of Athenian education were democratic. Judgments can be made only in terms of the kind of society for which the education was preparing youth. In both Sparta and Athens, education was designed for the few, as compared with modern conceptions of democracy; for the slave class in each city-state was the largest element in the population, and formal education was not for them. If democratic education is to be measured by the extent to which it serves a whole population,

neither Sparta nor Athens set up a democratic education. But, even in this sense, Athens was somewhat more democratic, for some provisions were made for noncitizens. Foreigners in Athens could attend the Cynosarges, foreign Sophists were welcomed as teachers, foreigners were welcomed as students, and in Hellenistic times foreigners were admitted to the Ephebic College. In Sparta, foreigners were never eligible for the educational facilities available to the citizen class.

Within the citizenship class there is a sense in which Sparta treated its students more democratically than Athens, for the public system of education treated all citizens alike, whereas in Athens the ability to achieve an education depended upon the wealth of the student's parents. In Athens the richer the family the more chance there was for the boy to have more and better education. Sparta also gave more attention than Athens to the education of girls. Furthermore, Sparta went further than Athens in providing education free to the citizenship class. However, equality of educational opportunity and free tuition are not exclusively criteria of democratic education, as is witnessed by modern dictatorship countries, in which education has been provided equally to those deemed worthy of full citizenship and provided free to them at state support.

To reverse the argument, we cannot say that Spartan education was essentially nondemocratic merely because it was compulsory and that Athenian education *was* democratic because it was voluntary. Compulsory education can be combined with the democratic ideal, as our own experience in America has proved. The essential thing about compulsory education is the source of the compulsion. If education is forced upon a people by a dictatorial group of whatever kind, this is doubtless undemocratic compulsion; but if compulsory education arises from the will and consent of the people in order to preserve and improve democracy, then surely compulsory education fits in with a democratic ideal. Similarly, it should be recognized that force and compulsion are not *necessarily* antidemocratic; the source of the authority is the important thing. No one would say that traffic rules, for example, are undemocratic merely because they limit the freedom of motorists to run down pedestrians. If the duly constituted authorities in a democratically run society decide that laws and force are necessary for the good of the whole people and if such laws are open to change at the will of the people, then authority and force must be considered democratic.

To sum up, it seems clear that Spartan education (like that of Nazi Germany, Fascist Italy, and imperial Japan) was less democratic than that of Athens because it aimed at training a military elite bent upon preserving an aristocratic dictatorship. It seems clear also that Athenian education was more democratic because based on a broader concep-

tion of citizenship by which the citizen was expected not only to defend the state by military action but also to become a well-rounded individual worthy of a democratic society. The wider range of interests in Athenian education that reflected the desire for intellectual, emotional, and aesthetic development as well as physical and military development made it essentially more democratic than the education of Sparta.

From a modern point of view it seems likely that Athenian education would have been even more democratic had it set out to provide a compulsory, free education with public support for all Athenian youth equally. In this way the individualistic character of Athenian education might have given way to a more socially minded conception of democracy. This was especially true in Hellenistic times, when citizens lost a great measure of their interest in politics and education became separated by a wide gulf from the common life of the people. A continuing interest and participation in public affairs on the part of the whole population are essential to democracy, and a too narrowly intellectualistic or vocational education can become as undemocratic as an exclusively military and physical education. Democracy requires a proper combination of all these factors.

Status of the Teaching Profession

The status of the teaching profession in Greek society was a mixed affair. In Sparta the teachers of military and physical training were public officials and presumably attained the status of any minor official. The Spartan custom of laying educational responsibility on all adult male citizens was something of a survival from primitive tribal times, but if separated from the kind of education that Sparta set up the ideal is probably not a bad one. It would be an excellent thing if in a democratic society all parents took a greater interest in and responsibility for the education of all youth as embodied in the public schools of a democracy. In Athens the status of the teaching profession ranged from extremely low to extremely high and often changed from time to time with the social and political situation.

The elementary teacher in Athens was held in relatively low regard partly because he accepted fees for his instruction and partly because of the prevalent feeling then as now that "he who cannot do, teaches." Satirical statements among some of the Greek authors bear witness to the feeling that certain persons taught letters when they could not make a success of any other occupation. Furthermore, the practice of assigning slaves as pedagogues to the young boys also indicates the low estate of this group, which held a semiteaching position. Some teachers were slaves, but this should not be taken too literally, for the term "slave" often referred to citizens of another city-state that had been defeated

in war, and such slave-teachers may have been ordinary or even extraordinary citizens in their own city. In fifth-century Athens the Sophists, many of whom were foreigners, were held in very high regard by great numbers of Athenians. When democracy was considered safest, these foreigners were welcomed and students flocked to them to study and pay their fees.

Great teachers such as Socrates, Plato, Aristotle, and Epicurus achieved a very high social status at certain times in Athens. But in the end Socrates was condemned to death, and Plato and Aristotle had to leave Athens until their political and social views were considered more acceptable. Social pressure upon teachers is not a new phenomenon. In general, the teachers of advanced studies were held in higher regard, then as now, than teachers of beginning or elementary subjects. The gymnasiarch was a public official and thus entitled to fairly high status, and in many Hellenistic cities teachers as well as administrators were elected by the citizenry. The fact that many wealthy persons gave endowed funds for teaching purposes shows that the teaching profession was not altogether a despised profession. If one takes into account the fact that the Athenian schools of philosophy and rhetoric lasted for some 800 years and that the great institutions in Alexandria and elsewhere were founded and endowed by a long series of kings, it seems clear that the Greek world had a much higher respect for teachers as a distinct profession than any other culture up to that time.

Nonschool Agencies of Education

One of the most remarkable aspects of Greek culture is the way in which nonschool institutions and agencies carried on the educational process of fitting people to live in the culture. The compact nature of the city-state made it possible for a great majority of the citizens to engage personally and actively in the on-going activities of the culture. Conversely it made possible a degree of impact by the culture upon the people that is much less characteristic of a large, sparsely settled, and loosely knit society. The people of the city of Athens lived constantly in the presence of the beautiful art objects represented in their public buildings and temples. They participated actively in the political deliberations of the assembly, the economic "deliberations" of the market place, the public festivals and holidays, the public theater, and the celebrations attendant upon athletic contests, musical contests, and poetry contests. The farmers of the adjoining region and the sailors of the near-by port of Piraeus could take part in these activities on many occasions rather than few. The military training of the years spent in the army touched great numbers of the men of Athens and thus contributed to their education, broadly conceived. All these adult activi-

ties carried on the education begun in the schools, and their effectiveness was a tribute not only to the cultural life of the Athenians but also to the broad range of activities carried on in the schools.

One of the most important cultural agencies of education, however, was not touched by the schools, and that was the preparation for engaging in an occupation or trade. Vocational education was a matter with which the schools of Athens did not concern themselves. It was left to a more or less informal system of apprenticeship. In this respect Athenian education continued along primitive tribal lines. Training for a vocation was cared for in family groups as the father taught his son his own occupational tasks. Apprenticeship also became somewhat specialized and formalized as children were taken into shops and households where they were taught the elements of a trade. As the economic revolution of the sixth and fifth centuries B.C. created a greater demand for skilled labor, small shops were often converted into factories and workmen became more specialized in their tasks. Written agreements were drawn up between master and apprentice, and a workman often cited his teacher as proof of his skill. Sculpture, stonemasonry, carpentry, shoemaking, and many other skills including medicine, law, household arts, and cooking apparently used the apprenticeship system as a means of training the young for a vocation.

Thus, the arts and crafts necessary for providing the consumers' goods of a people were handed down from generation to generation outside of the schools. This indicates something of the aristocratic nature of Athenian education according to which the gentleman of leisure was not expected to work with his hands. This aristocratic conception of education was increasingly emphasized from the fourth century on; for in Homeric days even the kings and noblemen worked with their hands, and in Solon's time an injunction was laid upon parents to see that children were taught a trade. In Hellenistic times the schools became geared to the interests of the upper classes despite the fact that for the majority of citizens the job of making a living was still of paramount importance. Increased slave labor further tended to lower the popular estimation of artisanship. The modern world has accepted too wholeheartedly the education of Hellenistic times and often has neglected such a vitally important phase of any culture as the handing down and improving of the practical arts and crafts.

EDUCATIONAL AIMS, CURRICULUM, AND METHODS

Sparta: the Military-dictatorship Ideal

The aim of education in ancient Sparta can be simply stated: to train the warrior-citizen to take his place in the military state. All was

subordinated to the end that youth should be molded into the exact adult pattern deemed necessary to perpetuate the state as it was. And a very effective job the Spartans made of it. In the education given in the public barracks the boys were drilled constantly in habits of obedience and respect for authority. They were subjected to rigorous discipline designed to develop their physical stamina and endurance and instill qualities of loyalty and courage, all leading to the ultimate skill in military affairs that would produce success in war. The communal life in the barracks for the younger boys of seven to eighteen contributed to this aim of building the hardy bodies and minds necessary in the type of war they might expect.

Beds were purposely hard, food was simple, and clothes were light in order to accustom the boys to the conditions they would find in the field. Fighting and physical contests were emphasized as a training for combat. Strong and agile bodies were developed by gymnastic activities such as wrestling, archery, javelin and discus throwing, running, jumping, riding, and swimming—all essential in the kind of warfare they engaged in. Flogging and other severe corporal punishments were employed to promote obedience and also to toughen the body. Hunting and tracking down animals and human opponents helped to instill habits of effective field work and concentration.

Martial music and singing were taught, to build up the kind of military morale that was deemed necessary, and military dancing in the form of close-order drills was used to develop agility and teamwork as well as to give physical training. Moral qualities were instilled by causing the boys to memorize the laws and the Homeric poems and to chant patriotic and religious songs. Literary education apparently played only a small part in Spartan training, for there is little evidence of attention to reading, writing, or arithmetic. The formal pursuit of such intellectual studies as grammar and logic seems to have been wholly absent, and the negative reaction to rhetoric is typified in the glorifying of brief, clipped, "laconic" speech. Girls were given as much of this training both physical and moral as would fit them to become strong, healthy mothers.

When the youth went into regular military drill at eighteen, they began to apply all they had learned to the art of warfare. War games became a feature of the training. The youth continued their physical and military training, studied the geography of their land, and studied the strategy of defense and attack. Organized military bands roamed the countryside, learning how to care for themselves, sleeping in the woods, foraging for food, and for practice attacking farmers and Helots in the Spartan version of *blitzkrieg*. In this way the youth not only learned the methods of Spartan warfare but helped to police the subject

populations in the interests of the Spartan rulers. Qualities of stealthiness, cunning, and resourcefulness and skill in spying were thus built up in a manner that would do justice to a modern *gestapo*. With such an educational ideal designed to fit the military-dictatorship ideal of the state, it is no wonder that Sparta produced no lasting literature, art, science, or philosophy. Again, the parallel with modern dictatorships is all too obvious.

Athens: the Democratic Ideal (700 to 400 B.C.)

Aims. In contrast to the Spartan education just described, the aims and content of Athenian education were broad and revealed a great advance toward the democratic ideal in society and education. Reflecting the broader Athenian conception of citizenship, Athenian education set out to provide youth with an intellectual and aesthetic as well as a physical and military foundation for citizenship. These four aspects of the Athenian ideal found their counterpart in the types of schools and teachers that appeared in Athens, but merely to emphasize these four aspects of citizenship was not enough. In the Athenian educational ideal they were brought into a complete and well-rounded whole in which none of the four was emphasized to the exclusion of any other and in which all reached a perfect balance. The Athenians called this final result harmony; we often call it integration of the whole personality. The wording matters little, so long as the result is a well-rounded personality whose ultimate goal is the achievement of emotional stability and qualities of character that enable the individual to become a properly functioning member of the democratic community.

This is an ideal worthy of emulation, but in Athens even the ideal was somewhat lacking, for it gave no place to occupational or vocational training, so essential to a genuinely democratic culture. In practice, too, the ideal often fell short of its complete realization, for individualism often outran the social ideal of democracy. In the later days of Athens the ideal as well as the practice became one-sided as attention to physical development (gymnastics) and aesthetic development (music) began to fall by the wayside, leaving the intellectual ideal supreme. When this happened, Greek education became predominantly intellectualistic, and this was the ideal and practice handed down to modern times.

Elementary education. Although the earlier Athenian ideal of education called for harmonious development of the intellectual, aesthetic, physical, and military powers of the individual, a certain specialization developed in the means of achieving this ideal. Different teachers were assigned the task of developing certain aspects of the citizen's character. The teacher of letters (grammatist) began to concentrate on what might

be called the intellectual development. He taught the boys to read, to write, and to count. They learned to read by memorizing the alphabet, learning rhymes and songs about the various letters, and eventually reading from such books as the *Iliad*, *Odyssey*, Hesiod's *Works and Days*, and Aesop's *Fables*. They practiced oral speaking freely in order to learn correct pronunciation. They learned to write on wax tablets or papyrus as the teacher dictated materials for them to copy. Counting was usually done on the fingers or with stones.

The teacher of music (citharist) gradually came to have the somewhat specialized function of developing a sense of rhythm and melody. The boys learned to play the seven-stringed lyre, to sing, to chant, and to dance. These abilities not only developed the individual's aesthetic senses but also prepared him to take part in the civic and religious festivals and celebrations of his city. He could thus participate in the instrumental, poetic, and singing contests, in the war dances, in the rites to the gods, and in family celebrations connected with birth, marriage, and death. Most of the direct training for dancing was accomplished, not in the schools, but in connection with the Greek chorus that was so important a feature of the dramatic and religious festivals. A choregos (chorus master) was appointed to choose and train the members of the chorus for the various public occasions.

In the earlier stages of Greek education the teaching of letters and of music went hand in hand, instruction in both being sometimes given by the same teacher or by two teachers in the same school, which then often came to be known as the music school. It is important to note, however, that eventually the teaching of letters was separated from the teaching of music. When such specialization occurred, the ground was laid for the eventual disappearance of the musical and aesthetic emphasis.

The development of physical ability was in the hands of the gymnastic teacher (paedotribe), whose task was to develop physical stamina, grace, and health through exercises in the palaestra. The boys were taught how to run, jump, swim, throw the javelin, and wrestle and how to stand and walk gracefully. As far as we can tell, considerable emphasis was put upon the ability to control one's body easily and gracefully as well as skillfully. The boys exercised individually or in pairs, and careful supervision was exerted to see that the boys were matched evenly and played the game fairly and in a sportsmanlike fashion. Individual instruction seems to have been characteristic of all elementary education, and the class, or graded, method of teaching does not seem to have played a large part.

When all aspects of elementary education were properly related, the literary, musical, and gymnastic training was integrated into an organic

whole, each aspect supplementing and complementing the other. The ultimate aim was then found in the moral ideal of an individual fitted to participate in the activities of the state and to promote its welfare. Literature and poetry, music and song, dancing and physical prowess all had their proper place, not as separate subject matters to be learned separately but as integral parts of a larger purpose.

Advanced education. Beyond the kind of elementary education just described, the Athenians prior to the fifth century B.C. laid their principal emphasis upon physical and military training. The state gymnasiums provided physical education of an advanced type, where the youth from fifteen or sixteen to eighteen years of age gained further athletic training. They now concentrated more fully upon achieving excellence in the sports of the pentathlon, which constituted the high light of such great sports contests as the Olympic games. The pentathlon consisted of running races, jumping contests, discus throwing, javelin throwing, and wrestling. Modern outdoor track meets are still based upon these basic contests, with the exception of wrestling, which has become an indoor sport in America. The training in the gymnasiums was built up on the elementary exercises of the palaestra and was designed to give the physical skills necessary for Greek warfare. Naturally enough, the programs of physical education in modern times take on a more military aspect in times of war. One of the first demands made of American education when the United States entered the Second World War was that physical education should be "toughened up" for military purposes.

Military training was emphasized for Athenian youth from the age of eighteen to twenty during a 2-year period of cadet training. At this time the boys learned military drill and methods of defensive and offensive tactics, studied the topographical features of the country, and began to specialize in cavalry, infantry, or naval maneuvers. At the age of twenty the young man was ready to take his place as a full citizen and as a full-fledged member of the armed forces. Physical education and military training thus comprised nearly the whole of advanced education in Athens during the early Athenian period (from 700 to 500 B.C.).

Sophists. During the fifth century, however, a new type of advanced education began to grow in favor. This was an intellectual type of education conducted by the Sophists and stimulated by the political, economic, and philosophical changes that took place in Athens between 500 and 400 B.C. The Sophists were mainly itinerant teachers who came from Asia Minor and the Aegean Islands, attracted by the active life of Athens. Their teaching was highly informal; they came and went, talked on street corners, frequented the groves and gymnasiums, and

sometimes rented rooms, gathering student followers as they could. Some specialized in certain subjects, but as a group they were often opportunists catering to the dominant intellectual interests of the times. They were the "practical educators" who tried to adjust their teaching to the interests and desires of the potential students.

Gradually, the Athenian fathers began to be prejudiced against the Sophists, to think of them as superficial, shallow, and overdialectical and as sellers of tricks of the trade instead of as seekers after the truth. So long as Athens rode the crest of prosperity and power prior to the Peloponnesian War, the Sophists were not only tolerated but greeted with enthusiasm, especially by the young men; but when Athens began to shake and crumble under the impact of war, the conservative fathers began to be suspicious of these newfangled teachers who in their view were doubtless corrupting the youth of the city.

They were professionals who charged a fee, a practice not congenial to the Athenian love of the amateur. Some were actually quacks and boldly professed to teach anyone anything, even to the point of guaranteeing to teach a young man how to win either side of an argument. Worst of all, they seemed to be questioning the old customs, political traditions, the state gods, and religious beliefs. In time of war such skepticism could not be tolerated. The urge to reaffirm the ancient loyalties led to attacks upon the Sophists. Many of them had to leave Athens because it was too "unhealthy" for them, and the most famous of all, Socrates, was tried and condemned to death for his allegedly impious teachings.

Despite the attacks upon them, the Sophists gave an enormous impetus to advanced education of an intellectual kind. They were creatures of their day, reflecting the rampant individualism, the enthusiasms, and the skepticisms that swept Athens in the later fifth century B.C. Their contribution in widening the scope of advanced education and in helping to organize large, nebulous bodies of knowledge into teachable form was no mean one. Theirs was a transition task that was eventually overshadowed by the towering educational structures erected by Plato and Aristotle.

Socrates. Socrates is the only fifth-century educator who has continued to rank in fame and importance with such figures as Plato and Aristotle. Some who would glorify Socrates as one of the great teachers of all time resent attempts to classify him as a Sophist; but if the term is used to refer to all the informal teachers of the fifth century and not just to the quacks, then Socrates was a Sophist, and the greatest of them all. He left no record of himself or his ideas in writings of his own, and thus his story must be pieced together from what others wrote about him. He has been a most difficult figure to estimate because of the differ-

ent pictures of him painted by Plato, Aristophanes, and Xenophon. Most historians and philosophers have seen Socrates principally through the eyes of Plato, in whose dialogues Socrates is the central character. The problem that has troubled philosophers ever since has been to determine how much of Plato's description of Socrates stems from Socrates himself and how much from Plato's own conceptions. In any case, the reputation of Socrates as one of the most famous teachers of all time has remained strong.

Socrates differed from other Sophists in that he was a native-born Athenian and spent all his life in Athens. He did not charge fees, but he did accept gifts from his students. He professed great humility and ignorance, and yet he was disliked by many for the way he disconcerted those who were sure of their knowledge. He quickly gained great popularity among the young men of Athens because of his keen analytical powers, his ability to puncture the pompous and boastful, and his constant interest in a broad range of subjects. He asked profound questions concerning the future of Athens and concerning the general nature of justice, truth, good, and beauty. He was at once a typical Athenian citizen and yet through the magic of his tongue, the force of his personality, and the weight of his ideas, he was the outstanding intellectual figure and teacher of his time.

Of all that might be said about Socrates, perhaps his most important educational contributions were his method of teaching and of seeking knowledge and his conception of the role of knowledge in conduct. The "Socratic method," as it has been known ever since, is essentially the method of discussion, conversation, and question and answer. Socrates always insisted upon rigid and strict definition of the terms and subject under discussion. He aimed at making clear the conceptions of justice, truth, and beauty that people used and tried to see what they would mean in action. In his conferences, he assumed the role of a simple and humble seeker after truth. He would challenge someone's statement, refute and confute it with adroit questioning, bring his opponent from "unconscious ignorance" to "conscious ignorance," lead him to a blank wall, and then begin to build up his own account of the problem. His questions could usually be answered by "yes" or "no" and were intended to serve as a guide to a general proposition to which the group would agree. Socrates spent his days and nights in such discussions, talking with all sorts of men on all sorts of topics. He recognized that his method was not popular with those who had been discomfited, but he persisted in it because he said that he felt himself divinely commissioned to criticize and to be the "gadfly of the state." His method was thus one of criticism, to convince men of their ignorance when knowledge was uncriticized, to test moral standards and the goals of effort

by criticism, to break down overconfidence, and to seek the truth. He relied upon the ability of human reason to achieve through this method true knowledge and thus proper guides to action.

Socrates' interest in the role of knowledge in conduct led him to be primarily concerned with the ethical and moral problems of individuals and society. Knowledge, true knowledge, is the highroad to good conduct. He heard many of the Sophists preaching that the individual man is the measure of all things and that therefore each man can decide for himself what is right or wrong. Socrates set himself against such excessive individualism and insisted that true knowledge determines what is right or wrong. If a man knows, really knows, the truth, then he will act rightly. Knowledge is virtue, and virtue is knowledge, and never the twain shall be separated. Acceptance of this insight into the aims of education means that the ultimate goal of education is moral and ethical, to produce good people. This is one of the most important features of the heritage that Socrates has bequeathed to posterity.

Later Athenian and Hellenistic Education: the Intellectual Ideal (400 to 150 B.C.)

After the fifth century the ideal of a well-rounded development of the whole personality as the best road to good citizenship began to give way to a greater emphasis upon the intellectual training of the mind and a corresponding de-emphasis upon aesthetic and physical development. In general, this was a reflection of the decline of the democratic ideal of culture that took place as Athens was defeated by Sparta in the Peloponnesian War and as the other Greek city-states lost their freedom under the Macedonian and Hellenistic rule. The fifth-century conception of education as primarily the shaping of character for moral and social purposes faded before the newer conception that the best educated person is the one who has developed his intellectual capacities to the highest point. The conception of a free man became identified with the man of intellect rather than with the man of action.

Elementary and secondary education. By the end of the Hellenistic period the dominant elementary school teacher was the grammarist, or teacher of letters, who concentrated on the teaching of reading, writing, and counting. The teacher of music (citharist) and the teacher of gymnastics (paedotribe) began to play a smaller and smaller part in the elementary education of Greek boys. This meant that a literary education virtually became the basis of elementary education and aesthetic and physical education virtually dropped out of the picture. An education for literacy replaced an education for well-rounded development. This was a most important change in emphasis, for it was the school of

the grammarist that was followed as a pattern by the Romans and thus carried on in western Europe for centuries and eventually in America.

Much the same sort of thing happened to the new advanced schools that came to be known as secondary schools. Here again the physical education of the gymnasiums declined in public esteem, and a new secondary teacher called the *grammaticus* began to dominate the field. The *grammaticus*, as the name implies, was most interested in the study of grammar and rhetoric. Grammar included the rules of syntax and the study of literature, poetry, and meter. Rhetoric included composition, declamation, and the rules of oratory. The *grammaticus* sometimes taught some arithmetic and geometry, also, but his prime purpose and effort were devoted to linguistic and literary ends. Even the military training that had become compulsory with the establishment of the Ephebic College in Athens after 335 B.C. lost its purpose when the Greek cities lost their freedom. Military training no longer had a real function in life, for the Hellenistic armies did the fighting, and the Ephebic College became a socially aristocratic club that began to require its members to study the literary and linguistic subjects.

In the case of both elementary and secondary education, music suffered because of a change in public taste. In the fourth century the character of the music that was admired changed from the religious, civic, and martial type to a softer, more romantic and sensuous kind. The flute became more popular than the lyre, and words became incidental to the melody. Almost the same sort of thing happened in the United States in the twentieth century, when jazz and "popular" music became the rage as against religious and "classical," or "good," music. The Greek fathers objected to the enervating, new music and ruled it out of the schools. As a result, music in practice lost much of its honorable place in Greek education.

The same sort of thing happened to physical education. Having no longer a direct relation to general military service, physical education became the plaything of the upper classes or the prerogative of professional athletes, who engaged in sports for the money they made and the popular acclaim they received from admiring audiences. When spectator sports became more popular than participation in sports, bribery and gambling increased. Again, the Greek fathers condemned such practices, and physical education lost its role in the schools, both elementary and secondary. When music, physical education, and military training were gone from Hellenistic schools, the intellectual studies remained.

Higher schools. With the institutionalizing of higher education in the fourth century B.C., a great tradition was launched that has affected Western civilization ever since. Plato's Academy and Aristotle's

Lyceum became virtually world-famous and lasted for several centuries. In this way the works of these philosophers were handed down from generation to generation, and their teachings became imprinted on the mind of the Western world. The very names of these schools have been preserved down to the present day in the academics of France, England, and the United States and the *lycées* of France, the *Lyzeum* of Germany, and the lyceums of the United States. As the informal teaching of the Sophists gave way to the institutions of the Academy and Lyceum, so the "practical" intent of the Sophists gave way to the "philosophical" purposes of Plato and Aristotle.

Plato's Academy gave itself largely to the study of philosophy (dialectics, metaphysics, ethics, politics, law, and literature) and of mathematics (arithmetic, geometry, music, astronomy, and physics). The Lyceum carried on the tradition of Aristotle's interest in the sciences, and thus its philosophy included not only attention to metaphysics, logic, aesthetics, ethics, politics, and rhetoric but also a great emphasis upon the natural sciences (physics, mechanics, meteorology, botany, zoology, anatomy, geography, geology, and medicine). Aristotle's vast range of writings was largely in the form of lecture notes that he used in his teaching in the Lyceum. In the fifth century the various bodies of knowledge available today were not highly systematized or organized. It was largely Aristotle's work in the Lyceum that led to the classifying and organizing of the great fields of knowledge. Alexander the Great subsidized Aristotle's researches with large amounts of money, and many men were commissioned to gather scientific data for Aristotle as they marched with Alexander's armies on their extensive campaigns in all parts of his enormous empire.

A much more "practical" type of education was given in the rhetorical schools that were established in the fourth century, again as an outgrowth of the interest aroused by the Sophists. The most famous of these rhetorical schools was founded by Isocrates, who opposed the verbal tricks and subtleties of the Sophists. Isocrates tried to capitalize upon the genuine respect that Athenians had for oratory and rhetoric, and he insisted that the power of speech should be used only for democratic purposes. He urged that, if rhetoric were to be an instrument for promoting democracy, the orator must be a genuinely virtuous person devoted to the common good. Only in this way could rhetorical training be training for good citizenship. In a 2-, 3-, or 4-year period of training, he tried to furnish not only the principles and practice of good oratorical style but also a broad background in knowledge and understanding as a basis for the use of rhetoric. Isocrates apparently understood the importance of proper loyalties and ideals as the groundwork upon which to build specialized skills.

These philosophical and rhetorical schools continued into the Hellenistic period of the third and second centuries B.C., but their emphasis shifted somewhat as Athens became a conquered state. The rhetorical schools found less and less practical outlet for their teachings, for young men could no longer find genuine use for their talents in the absence of a vital democratic society. They therefore began to emphasize the delights of rhetorical style for its own sake. The turning of a nice phrase or a witty saying became more important than achievement in the assembly or courts. The philosophical schools likewise turned to knowledge for its own sake and became more like semireligious groups. Religion had long been identified with the city-state; but as Hellenistic control reduced the independence of the city-states, the state religions became less important, and new philosophical religions arose to satisfy men's desire to explore their fate and to describe the nature of things.

Some of these philosophical religions developed around new schools at Athens during the third century. Together with the schools already there, the aggregate has come to be called the "University of Athens." A better descriptive name would be merely the "Athenian Schools." The most important of the new schools were those conducted by the Stoics and the Epicureans. When Zeno set up his school known as the Stoa, he followed generally the tradition of Socrates and Plato. The Stoics preached that nature is inherently reasonable and hence conformity to the natural order of things is living according to the dictates of reason. They taught that tranquil acceptance of what life brings and calm indifference to painful circumstances are the highest goods in life. The moral life is to find reason in nature and to live resolutely in the light of these findings. Hence, Stoicism came to imply an imperturbable acceptance of the difficulties of life. Through its doctrines and its semi-religious nature, Stoicism was a forerunner of Christianity and, indeed, helped to shape the characteristics of Christian thought and practice.

The Epicurean school operated from a quite different philosophical orientation. Epicurus, who set up a school known as the Gardens in Athens, had been influenced by Democritus, a traveling Thracian philosopher. Democritus had taught that matter was eternal, indestructible, and uncreated and that the universe was merely infinite space filled with material atoms, operated by chance rather than by a creative intelligence or reason. Thus, Epicurus believed, not in a divinely inspired natural world, but in a mechanistic universe. Happiness consists in avoiding pain and seeking pleasure. The good life is found in achieving freedom from the evils of pain, useless desires, and obstructing fears; the highest good is the pleasure of intellectual pursuits. It can readily be seen how eventually it was forgotten that according to Epicureanism the highest pleasure is intellectual and how it came to be believed

that Epicureanism means "Eat, drink, and be merry, for tomorrow we die." Both the Stoics and Epicureans resembled evangelical church orders in some respects. They went about preaching and seeking converts to their doctrines, and they had fraternal festivals, took care of their sick, and provided burials for their dead.

The higher education that grew up in other parts of the Hellenistic world did not partake so much of this religious character but rather resembled informal research institutes of various kinds. The most famous of these was at Alexandria, where scholars came together to pursue their own studies and where young men came to work with the older ones. As described in Chap. II, considerable work was done here in advancing the knowledge of the physical world through the study of mathematics (astronomy, geometry, trigonometry), physics, geography, medicine, language, literature, and philosophy.

The accumulation of knowledge at Alexandria and at other Hellenistic centers was important in its own right and also because the tradition was carried on into the Roman Empire and beyond the Roman Empire into the western Europe of medieval times by means of Arab and Hebrew scholars. The Athenian schools were favorite places to send Roman youth during the height of the Roman Empire, and they even outlasted the fall of the Western Roman Empire, finally being closed by Justinian in A.D. 529 because they were pagan. The other Hellenistic centers of learning continued more or less active under the Roman Empire and then received another stimulus from the Arabs during the eighth to the thirteenth centuries.

It is difficult to assess the contributions of Hellenistic higher education because of the long period involved. It might be put this way: In respect to the accumulation of knowledge and information through research and investigation, the Hellenistic period took enormous strides forward. It made knowledge more easily available to scholars who wished to continue research work for the joy of it. But in respect to the *aim* of education, the influence of Hellenistic higher education was less desirable. The intellectual ideal of knowledge for its own sake was exalted to the extent that the welfare of the student and of society largely was overlooked. Hellenistic education lost its fervor for creating good citizens in a free and democratic state, and it lost its concern for the development of the physical, aesthetic, and moral qualities of the well-rounded individual. In modern terminology, Hellenistic education exalted the "graduate school ideal" of research and neglected the "college ideal" of teaching for social and individual values. Its dominant concern was to organize knowledge and then teach the content of that knowledge to students.

Theories of Education Appear

The purpose of this final part of the discussion of Greek education is to emphasize the fact that Greek writers for the first time in history began to give special thought and attention to the role of education in their culture. This does not mean that a theory of education was not involved in the actual educational institutions and practices that were established in the Greek city-states. A reader who is interested especially in the theory of education should therefore give close attention to other parts of the chapters on Greece, for much educational theory is present in the discussions of the ideas that men lived by and in the foregoing sections of this chapter. It is important to indicate, however, that certain Greek writers were charting the course that they felt that schools and education should follow. In most cases such discussions of education were incorporated in larger treatises on politics or philosophy.

Plato's "Republic." Perhaps the most important and influential discussion of educational theory is contained in Plato's *Republic*, which is, in a larger sense, a thoroughgoing treatment of the ideal state that Plato was proposing to the people of Athens. His conception that education is to be viewed as an integral part of the larger social questions of politics and philosophy is a most provocative and rewarding one for modern times. Judgments concerning the validity of Plato's educational proposals thus must be closely related with judgments concerning Plato's political proposals. If we agree with Plato that an aristocracy is the best kind of society, we might agree that Plato's educational theory is the best for us to follow. However, if aristocracy does not appeal to modern Americans, then we must be skeptical of many of Plato's educational proposals.

Plato paid little attention to education for the great masses of people who did the work of the world; he was interested only in the education of the warrior and ruling classes. Education is designed not only to form the character appropriate to the ideal society but also to act as a selective agency by means of which the most able are brought to light. Children should be reared in state nurseries before the age of six, and during this time they should be taught fairy tales, nursery rhymes, and stories of the gods, with emphasis upon the virtuous gods and omission of immoral stories. From the ages of six to eighteen the main ingredients of education should be music and gymnastics. Music should include not only training in music and dancing that would create the proper moral spirit but also training in letters that would enable the youth to read, write, and count. Gymnastics is to develop the spirited element in human nature just as music develops the reason; the object of all education is to blend these two elements into harmonious pro-

portions. From eighteen to twenty, further physical training and especially military training should occupy the time of the men.

At the age of twenty those who are to become warriors should begin working, whereas those destined to become the philosopher-kings should continue a course of higher study for 10 years, this course to consist primarily of mathematics and science (arithmetic, geometry, astronomy, and music). It should be noted here that these studies are those of the quadrivium, which made up the higher studies of the Middle Ages (see pages 185 to 189). This testifies to the influence of Plato's theories upon all higher education after his time. At the age of thirty, after 10 years of such training, the less brilliant of the ruling class should go into the lower civil offices of the state, and the most brilliant should continue their studies for 5 years more. After a regimen of philosophy (dialectics and metaphysics), which makes up the highest study of all, dealing as it does with pure reality and pure knowledge, the true philosopher-kings will have finished their preparation for ruling. They then are to go out for 15 years into the actual world for practical experience in the affairs of the state and come back at the age of fifty to take over the reins of government as the highest directing public officers.

Plato's predilection for mathematics and philosophy is clearly revealed in this plan. He believed that such mental training is the best discipline for the conduct of public affairs. Once the philosopher-kings are trained in the pursuit of knowledge, they are ready to solve problems of all kinds. Thus Plato not only affected the content of the higher education of the Western world to come but also set the pattern of mental discipline that has been so much a part of English, French, German, and American higher education almost to the present time. Any estimate of the validity of Plato's proposals for us must include not only what Plato said but also what his followers over the centuries have interpreted him to mean, for the influence of Plato upon us has included both.

It seems clear that Plato's followers in higher institutions have emphasized his intellectualism and that his followers in lower institutions have forgotten his insistence that the well-rounded development of the individual through a careful attention to the role of music and gymnastics (in the Greek sense of these terms) is a means of developing personality and character. In the estimate of the author modern educators in elementary education could well reassert Plato's notion of harmonious development of the individual as the path to developing good citizens, but modern educators at the higher levels should be wary of Plato's undemocratic conceptions of intellectual training and of human nature, for they lead simply to training for leadership in an aristocratic society.

Aristotle. The distinct educational proposals that Aristotle made are more difficult to describe, for they are incomplete and are scattered through his writings, especially in his *Politics* and *Ethics*. It seems clear, however, that Aristotle looked upon education as a branch of politics in the sense that education is necessary for the building of a cohesive community life and public morale. Therefore, education should be under state control and should be approximately the same for rich and poor alike so that disparities and class inequalities will not grow up among the free citizens. That Aristotle did not envisage equality among *all* people is clear from his distrust of democracy and from his conception that some human beings are fitted by nature to be free and others to be slaves, or unfree. For example, Aristotle believed firmly that education should be liberal (that is, for free men) rather than practical or vocational. The proper occupation for free men, according to Aristotle, is citizenship, whereas the lower occupations of trade, artisanship, or farming are illiberal because they distort the body, destroy harmonious development, destroy leisure time, and do not allow for the pursuits of citizenship and intellectual investigation. Our inherited tradition that a liberal education is something opposed to preparation for earning a living grew out of an aristocratic conception of society and of human nature and was firmly entrenched in Western education through the efforts of the followers of Plato and Aristotle.

Aristotle further believed that the organization and curriculum of education for free citizens should follow the growth patterns of children. Infants, who are virtually animals, should be given opportunities for play, physical activity, and proper stories. For children before adolescence the main emphasis should be upon moral and physical education, for the preadolescent period is primarily one of irrational or nonrational development. Little or no intellectual training should be attempted before the age of fourteen; rather, the emphasis should be upon inculcating correct moral habits through practice and through turning to good account children's natural imitativeness, sense of shame, and desire to be successful. This means, in respect to curriculum, an emphasis upon gymnastics for bodily control, music for its ethical value as a control over the emotions, and enough reading and writing to make thoroughly familiar the fundamental operations. Aristotle firmly believed that moral education and development of character are attained, not through the study of theory or the preaching of precepts, but only through establishing stable habits of conduct.

For adolescent youth up to the age of twenty-one in whom the rational faculties are developing, Aristotle would turn to such intellectual studies as mathematics (arithmetic, geometry, astronomy, and music), probably grammar, literature, poetry, and rhetoric, and perhaps

ethics and politics. Aristotle is not very definite on these matters, but it is likely from his own teaching in the Lyceum and from his other writings that the highest study of all, for those beyond twenty-one years of age, would include the sciences (physics, cosmology, biology, and psychology) and philosophy (logic and metaphysics). This assumption is made in the light of Aristotle's insistence that the theoretical reason is a higher function than the practical reason. Science and philosophy are the subjects appropriate to theoretical reason or knowledge for its own sake, whereas ethics and politics are appropriate to the practical reason or the making of moral decisions.

It is clear that Aristotle proposes different educational aims and procedures for different levels of instruction, and it is this fact that leads to different estimates of his influence on later times. His suggestions are not highly original but agree in their main outlines with those of Plato. Perhaps the most important difference is the neglect by Plato and the inclusion by Aristotle of the study of physical and biological science. Plato finds little place for such science inasmuch as it deals with the changing natural world rather than with eternal ideas. Aristotle feels that such science can reveal first principles and true knowledge just as well as philosophy can. In fact, Aristotle emphasizes the role of experience and the inductive method in arriving at first principles or real knowledge. Aristotle's conception of educational method and learning probably included much more emphasis upon direct experience. Indeed, this difference in outlook led to violent intellectual controversies in the Middle Ages, when the realists looked to Plato for support and the nominalists sided with Aristotle (see pages 152 to 157).

Xenophon is interesting principally as one of the most reactionary Athenians who wrote on educational theory. He had no love for Athenian democracy and therefore quite naturally turned to Sparta for his social and educational ideals. He lived for long in Sparta as an exile from Athens; and when he set forth his educational proposals in his *Cyropaedia*, he idealized the military state and a military education that would support such a state. In turn the state should rigidly control education for its own purposes. The boys should begin military training as early as seventeen or eighteen years of age and then should continue active duty for some 10 years. His scheme was much narrower than that of Plato, and in effect he stood as an apologist for the Spartan system as it actually existed, with little or no attention to literary, musical, or philosophical pursuits. Xenophon also wrote about Socrates in his *Memorabilia*, about the education of women in his *Oeconomicus*, in which women are consigned exclusively to the household, and about his military exploits with the Greek armies in Persia in his *Anabasis*, which has been an elementary textbook for countless

generations of boys in their study of the Greek language. To anyone interested in democracy Xenophon's theory of education is interesting principally as serving warning as to what might happen if the disgruntled conservatives should have their way in education.

Isocrates stands out in contrast to Xenophon as one of the most forward-looking of Greek educational theorists. Through his long life Isocrates was a most effective teacher of rhetoric, and his ideals had a great influence not only upon the Greek world but upon Rome and Roman education. Isocrates saw clearly that the genuine orator must be primarily a man of good character, devoted to the public good. Rhetoric is not merely a means of persuading people to action; it lays upon the rhetorician the obligation to work for the welfare of the state. Thus, an orator must be a good statesman if he is to be a good orator. The preparation for such an ideal, therefore, not only must include a study of rhetorical principles and techniques but also must emphasize a broad background of general knowledge, including literature, logic, history, political science and ethics, art, and music, as a basis for forming good judgments of public policy.

Of immense interest, also, is the emphasis of Isocrates upon the practicality of knowledge. He makes a plea that moderns would do well to emulate. Philosophy is the means by which knowledge is used for the practical business of making judgments and decisions concerning proposed courses of action. Knowledge for its own sake and without relation to action is not properly to be called philosophy. Here, then, is a most important educational ideal for democracy. Isocrates realized the necessity of education as a process of building up a sense of community responsibility. He worked long and arduously for Panhellenic unity, but his efforts were never crowned with genuine success before Greece fell to the Macedonian conquerors.

In general, it may be said that despite the influence of Isocrates upon Cicero and Quintilian in Roman times, his ideals were never as fully accepted by the Western world as were those of Plato and Aristotle. One of the reasons may be that Isocrates' conceptions of the relation of knowledge to action were appropriate only in a flexible democratic society, whereas Plato and Aristotle could be followed by the upper classes of an aristocratic society whenever they were allowed to pursue their intellectual studies without too much contact with the actual world of life and action. Intellectualism breeds an aristocratic social arrangement, but the development of an active intelligence concerned with social affairs requires democracy for its fullest expression, and democracy requires the development of such practical intelligence for its own preservation and improvement.

CHAPTER IV

ANCIENT ROME

(Eighth Century B.C. to Sixth Century A.D.)

THE INSTITUTIONS MEN LIVED BY

In the third and second centuries B.C. the center of political and economic gravity shifted from the eastern Mediterranean to Rome. The chronological sequence of our story, therefore, must be interrupted in order to describe briefly the cultural developments that took place on the Italian peninsula prior to the second century B.C., when Rome conquered the eastern Mediterranean.

Political Institutions

Primitive times in Italy (before 800 B.C.). The history of the Italian peninsula in primitive times is largely clouded with uncertainties. The evidence seems to show that Italy was the scene of several migrations of peoples from eastern Europe and Asia Minor during the fourth and third millenniums B.C. The best that can be said is that a series of Indo-European tribes swept into Italy in the third millennium B.C. and that these tribes were apparently the ancestors of the various Italian tribes, the most prominent of which came to be the Latins and Samnites. Other tribes came in at various times, some from the north and east coasts of the Adriatic Sea and some, who came to be known as Etruscans, probably from Asia Minor around the ninth century B.C. By the eighth century B.C. the Etruscans dominated the west coast of Italy above the Tiber River, the Latins dominated the central portion of the west coast, the Samnites the south and east coasts, and other Italian tribes the north and east coasts. Their culture was presumably much like that of other primitive tribes.

Rule of kings (eighth to sixth centuries B.C.). In this age other peoples migrated west; the Phoenicians settled on the north coast of Africa, their main centers being at Carthage and in Sicily; the Greeks came to Sicily, especially to Syracuse, and to the southeast coast of Italy at Tarentum and elsewhere; and the Gauls, or Celts, came down from northern Europe to settle in the northern regions of Italy. During this period the Latin tribes became prominent and came into conflict with

the Etruscans and other Italian tribes. Rome, whose legendary founding is usually put at 753 B.C., became the center of the Latin tribes.

The rulers of Rome as well as of the other tribes were kings and noble families. At Rome the Senate, which apparently existed through this whole period as an advisory council to the kings, was made up of the noble families whose descendants were known as patricians. These patricians, who were the highest class of landowners, came to be a hereditary aristocratic class. They fought in the army as mounted cavalry, providing their own armor and horses. The Etruscans conquered Rome and ruled it during the sixth century B.C., until they were finally overthrown at the end of the century by the Latin tribes, with the help of a Latin league of Italian cities. Rome emerged from this period as a leading military and political center with the aristocracy more powerful in military, political, and economic affairs than ever before.

The Roman Republic (fifth to first centuries B.C.). The legendary founding of the Republic is usually given as 509 B.C., the time when the Romans threw off the rule of the Etruscans and at the same time threw off the rule of the kings. The aristocratic class of patricians continued to be the dominant political power in Rome during the fifth and fourth centuries, expressing its power through the Senate, which, instead of choosing a new king, set up a constitution by which the Senate chose two consuls to be joint executives for a period of 1 year. These consuls were given complete power over military, civil, and religious affairs during their term of office; but since they were elected by the Senate this constitution has been said to constitute Rome a republic. However, it was much less a democracy than Athens at the same period under the reforms of Cleisthenes, for the control was virtually in the hands of the aristocratic patrician or senatorial class.

However, the plebeian class of citizens (or common people) began to increase in numbers and in political importance. They were citizens who did not have the standing of the patrician families but who were free inhabitants of the city of Rome—the artisans, foreigners attracted to Rome, and small landowners. As a result of wars with the Gauls who fought their way into Rome, the Latins again sought to build up a strong military confederation of Latin cities and to make the army stronger than ever. In this process the plebeians were called upon to serve in the army to help out the depleted aristocratic army. The plebeians thus became more important because of their military power and were often rewarded with grants of land from the conquered territories. As the number of free landowners among the plebs increased, they became more important economically and eventually became full citizens and members of the army. Thus, a citizen army was created.

made up of all landowners divided into classes depending on the amount of their wealth.

The plebeians henceforth had a sense of common interests and demanded some sort of organization for the furtherance of these. As a consequence, they began to choose representatives known as tribunes, who probably were originally the leaders of the plebeian armies. Several tribunes came to be elected annually, and gains were made for plebeian rights in the code of civil law published as the Twelve Tables about 450 B.C. The laws of the Twelve Tables codified the common law concerning judicial procedures, relations between creditor and debtor, the rights of the father and inheritance, contractual obligations of sale and real property, torts and crimes, and burial. The historic prohibition against marriage between patricians and plebeians was lifted, and in other ways the political importance of the plebeian class was enhanced despite the continued dominance of the senatorial class.

In the fourth and third centuries the popular Assembly appeared and gained political power at the expense of the Senate. The Assembly was made up of all citizens who served in the army; thus it consisted of all free landowners. The Assembly came to have the power to pass laws, elect consuls, and decide matters of war and peace. Plebeians achieved the right to be elected to the consulship, and the tribunes acquired the power to defend plebeians against discriminatory laws and to exercise a veto on the rulings of the consuls. The steady democratizing process that was under way in the fourth and third centuries brought the great bulk of the population into the exercise of responsibilities, rights, and duties as citizens of the state. This provided a framework of strength for the Roman state that was grounded in the whole citizen body. In a real sense a fundamental economic democracy provided the basic support for a measure of political democracy, just as was the case in fifth-century Athens and in early nineteenth-century America.

Despite these gains, however, the political control of Rome was never as democratic as in Athens. The public officials still came largely from the aristocratic classes, who had time and money to spend in politics, and the weight of tradition caused the people to lean upon the aristocratic families as persons who had greater experience and better judgment in political affairs. Although the Assembly had achieved the supreme power in the state, the citizens did not vote as individuals as in Athens but by five classes divided according to wealth. The first class, made up of patrician families, had 98 divisions with 1 vote each, whereas all the other four classes had a combined vote of only 95 votes. Thus, the minority of patricians could outvote the majority of plebeians.

As the political state became more complex, more public officials or magistrates were elected by the Assembly. In addition to the two

consuls already mentioned, other officials were elected to command the army and act as judges (praetors), to manage finances (quaestors), and to take the census and distribute persons into classes according to wealth (censors). When the term of office of these magistrates was over, they regularly took their seats for life in the Senate, which gradually became again the most important element in Roman political life. The Senate advised the consuls and came to exert enormous influence in the third century, and even the plebeians came to look upon it as all-powerful, once they had gained the basic military, political, and economic rights just described. The basis for conflict was laid, however, as the representatives of the patricians attacked the plebeian leaders, who began to fight for further rights for the common man. These struggles developed into a long period of civil revolution and civil war in the second and first centuries B.C.

Meanwhile, the military power of Rome was rapidly being extended abroad. A series of Latin Wars in the fourth and third centuries enabled Rome successfully to defeat the other major Italian cities on the peninsula. By 275 B.C. Rome had united all Italy under its control. Then, through the Punic Wars with Carthage, Rome gained control of Sicily, Corsica, Sardinia, and Spain by 201 B.C. Turning their attention to the east the Roman legions then carried on a series of wars against the Hellenistic kingdoms until Macedonia, Greece, Asia Minor, Syria, Egypt, and the entire Mediterranean world came under their sway. The Greek city-states at first welcomed the Romans as liberators in their struggle against Macedonia, but the Roman legions that came to free them remained eventually to rule.

At home the Senate emerged supreme in the second century as the people's tribunes lost the common touch, but the second and first centuries B.C. saw a long-continuing struggle between factions which professed to represent the common people as against those which represented the Senate. Intrigue and counterintrigue often erased any clear lines of demarcation, and sometimes the struggle became merely a contest for power among rival groups or individuals. Among the most genuine champions for the interests and rights of the people were the brothers Tiberius and Gaius Gracchus, who, as tribunes, struggled to place more authority in the hands of the Assembly, to give more land to the poorer citizens, to extend the franchise to the Italian allies, and to sell corn more cheaply or give it to the landless poor of the city of Rome. They gained considerable power at various times but were eventually destroyed by the Senate, which emerged victorious by 122 B.C.

These struggles began a series of civil wars that lasted intermittently for a century. First the wars between Marius, representing the people,

and Sulla, representing the Senate, resulted in a further strengthening of the Senate and a further weakening of the tribunes and the Assembly. Then came the struggle between Pompey and Julius Caesar, the Senate at first supporting Pompey against the democratic proclivities of Caesar and ultimately opposing both under the leadership of Cicero. Caesar was victor and made himself virtually a complete dictator, concentrating all important offices in his own person; but he reckoned too lightly with the continuing power of the Senate, which contrived to assassinate him and thus set loose another series of wars, culminating in the struggles between Antony and Octavian. When Octavian emerged victorious, all the Mediterranean world was under his rule and the old city-state conception had given way to the conception of a world-wide empire.

The Roman Empire (27 B.C. to sixth century A.D.). Octavian became princeps, or first citizen of Rome, and took the name Augustus and the title imperator. Augustus apparently had good intentions about restoring the old forms of constitutional government, which he felt had been usurped by Caesar. In fact, all that he did was according to the scrupulously correct forms; he laid down all his extraordinary powers and thus afforded the Senate the opportunity of giving them back to him. Despite his good will and integrity, however, Augustus was the source of ultimate authority in all political as well as military affairs because of his complete control of the army. The army became more important politically than ever, for it became a standing professional army rather than a citizen militia. All its officers were members of the aristocracy, and the legions were made up of citizens who began to consider themselves as special recipients of privilege.

The Senate continued to command considerable respect from Augustus and from the people. It was a sort of training ground for the great number of public administrators and officials who were needed to rule the vast empire. Its activities still provided a route to promotion, an outlet for the energies of the aristocratic class, and a focus for their interests and loyalties. It remained true, however, that the real authority rested with Augustus despite his respect for and attentiveness to the Senate. Its tradition was a great one despite its actual lack of final power. Senators favored Augustus because he favored them. In fact, the power of Augustus was widespread among a population that was weary of constant wars and welcomed the 40 years of peace and prosperity that accompanied his reign.

During the first and second centuries A.D. the power and grandeur of the Roman Empire were at their peak. Commerce and trade prospered under relatively peaceful conditions, and the magnificent systems of roads vied with the seas as arteries of trade. Town life became common

as provincial cities were founded and developed in imitation of the glory of Rome itself. The provincial cities came to have a large measure of local autonomy and legal rights, and the people continued to display a keen interest in their local political affairs. Above the local governments, of course, was the authority of the central government at Rome, which kept control of the armies, finances, and taxes through the central agents and secret police. The immediate successors of Augustus ruled merely because they were related to Augustus, but every now and then strong and capable emperors appeared who ruled with a sense of their obligation to the people. Such were Vespasian, Trajan, Hadrian, Antoninus Pius, and Marcus Aurelius. It is probably no accident that these were the emperors who were interested in fostering education in various ways.

In the third and in following centuries the Empire fell upon evil days, and its weaknesses began to appear. After Marcus Aurelius, the army began to play an ever greater part in raising and overthrowing emperors. For example, in the 50 years between A.D. 235 and 285 there were 26 emperors, only 1 of whom died a natural death. Intrigue and counterintrigue on the part of the army and of the Senate produced a chaotic situation. Taxes became heavier and heavier, especially upon landowners, and coinage was debased as the emperors sought to fill their coffers by striking coins that they used to pay their own debts and then refused to accept in payment for taxes. The autonomy of local governments virtually disappeared as the emperors took more and more direct power into their own hands. The emperor became less and less a "first citizen" and more and more an Oriental despot. The Senate had no political outlet for its energies, and the aristocracy became a pampered leisure class depending for preferment upon the fancy of the emperor. This development had enormous implications for education.

In the fourth century the authority of the Empire came to be divided between the eastern and the western parts. Diocletian began this process, which became even more pronounced under Constantine, who founded Constantinople on the site of ancient Byzantium as the seat of the Empire. By the fourth century, then, virtually two empires existed, one with a capital and Senate at Rome and another with a capital and Senate at Constantinople, although for years many emperors tried to keep alive the legal fiction of one unified empire. This theory became even more fictional as the many Germanic tribes began to press against the boundaries of the Empire, at first in the east in the fourth century and then later along the whole northern boundary of the Empire. The Romans had not only fought against the Germanic tribes but had carried on commerce with them and had brought many of them into the Empire as gladiators, soldiers, peasants, and slaves.

During the fourth, fifth, and sixth centuries, the Germans swept along the whole front of the Empire. In the fourth century the Visigoths gained permission to settle on vacant lands within the Empire and pushed into Thrace, Macedonia, Greece, and Asia Minor. After quarrels and wars, they went westward, conquering Italy and Rome, and then on to Spain and southern France in the fifth century. The Ostrogoths pushed down into Italy and Rome and set up a kingdom that ruled Italy in the sixth century, especially under the leadership of Theodoric. The Vandals conquered France and then went on to Spain and northern Africa. The Burgundians moved into southeastern France; the Anglo-Saxons conquered England; the Franks ruled France by the fifth century; and the Lombards moved into northern Italy. The bishops of the Christian Church in Rome maintained authority over a greater or lesser part of Italy, and the nominal rule of the Eastern Empire was acknowledged more or less sincerely by the various Germanic kings, who, nevertheless, held the real power.

In the sixth century Justinian as emperor of the Eastern Empire made vigorous attempts to reassert his rule over the West by conquering Italy and much of the western areas of the Empire in northern Africa and southern Spain. He was a strong administrator and exerted great authority. Not only did he build up the material aspects of the Empire, but also he codified the Roman law in the *Corpus Juris Civilis*, which systematized and weeded out the contradictions and outworn elements. Although Justinian made great gains in reestablishing the authority of the Empire, his successors were unable to maintain the gains made, and the Eastern Empire was confined more than ever to the eastern Mediterranean and became identified more than ever with Greek, Oriental, and Byzantine culture. Its powers of resistance were strong, and it tenaciously held on to some sort of order and continuity down to the fifteenth century. In order to explain more fully why it was that the Western Empire disintegrated and made way for the appearance of a medieval civilization, we must look more specifically at the economic developments that took place in the course of the rise and decline of the Empire.

Economic and Social Institutions

The most striking generalization concerning the economic and social development of the Roman world is that expansion and general prosperity were greatest under the Republic, when the base of economic ownership was broad, whereas contraction and depression set in when ownership of land became exclusive and confined to the upper classes in the days of the Empire. This development paralleled in major elements the course of economic events in Greece and gives warning to modern

times. Economic democracy was accompanied by a measure of political democracy under the Republic; but when the aristocracy gained economic and social superiority under the Empire, political power and freedom passed out of the hands of the great masses of people. Finally, when the emperors turned on the aristocracy and destroyed it, all groups lost political as well as economic power, and the emperor became supreme dictator. All these developments had enormous significance for education, which became increasingly exclusive and aristocratic as the process described above ran its course. It is possible that a more generous conception of the importance of widespread education would have played a part in bringing about and maintaining a more healthy political and economic condition.

Rule of kings (800 to 500 B.C.). As primitive life gave way to the kingdoms of the Etruscans and Latins in Italy, the most prominent economic bases of life were agriculture, stock raising, and maritime commerce. Several important cities grew up along the rivers and by the sea. The basis of social life was the family, in which the father was supreme arbiter of the destinies of all those dependent upon him, his wife, his children, his clients, and his slaves.

The clients were persons who worked for the head of the family and in return were given protection and subsistence by him. They were not free and independent, but they had a legal and social status superior to that of the slaves, who were owned outright by the masters. The clients were obligated to support and uphold the patron in his private and public life and even to contribute money to the patron's unusual expenses for litigation and marriage of his daughters. In return, the patron was bound to protect the client's interest and especially to represent him in any legal matter. As this paternalistic relationship developed and as patrons expanded their holdings, they sometimes drew a large political following simply from the clients who were dependent upon them.

Republican times (fifth to first centuries B.C.). By the fifth century B.C. class distinctions in Rome were fairly well established. At the top were the patricians, who were principally the large landowners, traders, and stock raisers. Then came the plebs, or plebeian classes, composed of clients as well as the free persons who owned their own small plots of land. Finally, there were the slaves, who had no political or economic rights. The most significant development in the fifth and fourth centuries B.C. was the growth of the *free* plebs, and this fact represented a great widening of the base of economic and social life.

The expansion of the free plebeians came about largely as a result of the following developments: Increasingly the common people were being admitted into the army and were being granted conquered land

as a reward for their services. They were also sometimes given land when new territories were annexed by agreement. In these ways many clients gained economic independence and political rights. The numbers of free plebs increased also as men drifted to Rome and to other cities in order to take advantage of the commercial and manufacturing activities that were becoming increasingly important. These plebs became shopkeepers, tradesmen, and skilled workers, especially as carpenters and blacksmiths, who were needed to forge the instruments of war and trade. Guilds, or associations of workmen (*collegia*), were formed to establish standards of workmanship and to give certain privileges to the guild members. Here is an early framework of economic organization that later became most important in the guilds of the Middle Ages.

The fourth and third centuries B.C. were the economic heyday of the small landowner, or yeoman, in Rome. Most of the land was held in relatively small plots, the yeoman-owner tilled his soil with his own hands, and large estates were relatively less common than in later centuries. Here was a broad basis of economic democracy that helped to make Rome a strong and powerful state and seemed to augur well for the extension of political democracy commensurate with the economic democracy that the land policy had fostered.

However, this trend toward economic democracy was abruptly terminated during the second century B.C. The class of free plebs declined rapidly as men were killed in the Punic and Eastern Wars and as the returning veterans could not keep their lands in cultivation. They fell into debt and often lost their lands to those who had money to lend and to buy land. Thus the proportion of large estates increased. This trend was also fostered by new commercial ventures that began to be profitable. As the Romans studied Greek methods of agriculture, they saw how advantageous it had been for the Greeks to give up farming in grain and to turn to wine, oil, and wool products for export. The general process of the Greek economic revolution some centuries before was thus repeated in its essentials in Rome.

Land was converted to vineyards, fruit and olive groves, and stock raising, and the products were exported to the West and then to the East as Roman products and traders came to be able to compete successfully with Greek traders. The large estate on the plantation model became more profitable, and the class of free plebs and small landowners began to decline. As the yeomen went into debt, they moved to the cities or stayed on the land as tenants, hired hands, or clients, and similarly the city classes of clients and more or less idle plebeians grew in numbers. This meant that the economic base was narrowed and the chances for lasting political democracy grew much less.

The converse of the decline of the small-landowner class was the growth not only of large estates but also of the business and merchant classes. Businessmen grew rich by obtaining government contracts for providing war supplies and for making ships, roads, and the weapons of war. The use of coined money became important, and this accumulated capital made the situation ripe for investment and speculation. The state needed money to exploit the conquered lands, and the businessmen were looking for profitable investments, and thus the two often joined forces to the advantage of both. The capitalists bought up the small lands of the debtor yeomen and leased large tracts of the public land conquered by the state. They imported plentiful supplies of slaves from the East for labor and set to work to develop the lands, forests, mines, fisheries, and pastures that now were available.

At first the capitalists came from the senatorial class, but the Claudian law of 220 B.C. prevented senators from engaging in business or taking government contracts. Thus a new class of businessmen and merchants developed, and inasmuch as their wealth made them eligible to serve in the army with cavalry rank they came to be known as knights (*equites*). Not only did they work as individuals, but they formed companies and pooled their resources in order to have more money for large enterprises in keeping with the expansion of the Roman conquests. The knights took their place along with the senators as a powerful group in controlling the destinies of the state. They were likely to side with the senators against the plebeians, and the time was ripe for the serious civil disturbances and civil wars already mentioned.

Finding a spokesman in Tiberius Gracchus, who was elected tribune in 133 B.C., the plebs set out to regain through political reforms what they had lost by the economic revolution. Laws were passed, under the leadership of Tiberius Gracchus and his brother Gaius Gracchus, limiting the amount of land any one citizen could own and taking the land away from the great landowners to be given outright or on lease to those who had no land. These efforts, however, were unsuccessful, the Gracchus brothers died in the attempt, and a conservative reaction set in. The Senate thereupon engaged in a series of foreign wars in Gaul, Spain, and Macedonia that were designed to help the upper classes find further outlets for investment, take the minds of the people off their domestic economic troubles, and give an opportunity to be rid of the discontented lower classes by shipping them off to the colonies. The attempts at political revolution in the second century had failed, and the senatorial and knightly classes emerged supreme.

In the first century B.C. the plight of the lower classes became worse, and the prosperity of the upper classes increased. The rural population suffered most from the civil wars; and although land was granted

to returning soldiers, they could not keep their farms going, the land went to the capitalists, and the large estates increased in size and number. The capitalists made great fortunes. They formed stock companies to collect taxes in the provinces, which was enormously profitable; they leased and cultivated public lands with the use of cheap slave labor; they loaned money, built ships, supplied and transported the armies, and bought up the spoils of war in produce and land. As capital flowed into Rome from the East, industry in textiles, metalwork, and pottery was greatly expanded and the East lost its economic supremacy because of the destruction of the wars and the monopoly of wealth in Rome.

Imperial times (first to third centuries A.D.). The economic and social life of Imperial Rome in the first and second centuries A.D. presented striking contrasts. On one hand were the wealth, beauty, comfort, and conveniences that combined to produce the "grandeur that was Rome." On the other hand were the undercurrents and signs that the economic situation was unhealthy and would lead to decay and decline. On the positive side many advances were made. The provincial cities became centers of commerce and markets for the receiving of goods from Rome and the shipping of raw materials back to Rome. Communication by sea and by a marvelous system of roads was excellent. In Rome itself the common people had fewer and fewer political rights, but the emperors tried to compensate for this lack by providing comforts and beauty and recreation.

On the negative side the grandeur rested on uneasy foundations that were eventually to topple the whole edifice. In agriculture the large estates remained large and even increased in size, but methods of farming declined in technique and efficiency. The owners moved to the cities and leased the land on long- or short-term leases to small tenants, who began to drop the scientific and specialized methods of farming. Ever more primitive methods were universally resorted to, for estates came to be managed by freedmen or slaves, who did not see the advantages of better methods. Also, the provinces began to find that they could make profits in wool, wine, and oil, and grain production declined. Italy thus had to revert to the growing of corn and grain for its own food supply, and this also led to the use of more primitive methods. Finally, the use of slave labor made it impossible for farmers or laborers to organize for protection against the owners in order to improve their status.

Likewise, in commerce and manufacturing deterioration in methods and products began to be evident. The provinces began to produce their own manufactured goods and to become more self-sufficient. As these local districts and provinces began to fill their own needs, they had

less need for the manufactured products of Rome. Thus, the large factories at Rome were broken up into smaller shops, and their products declined in quality and beauty. The finer quality of goods was no longer so much sought after, and the standards of taste became lower in the provinces. In the mines as well as factories the methods of mass production gave way to smaller workings, and again the techniques of mining and manufacturing declined in the hands of workers who worked alone or in small groups. It was apparently not recognized that the dissemination of technical information among the individual workers by a widespread education might have enabled the small farmer and worker to keep his standards high; widespread education for the ordinary people was not part of the Roman conception.

Decline of the Empire (third to sixth centuries A.D.). In the third century A.D. the forces of disintegration gained rapid momentum, stimulated by a series of military and economic crises and paving the way for an almost complete breakdown that progressively took place during the fourth, fifth, and sixth centuries A.D. As the emperors became complete despots, all trace of civil freedom and self-government disappeared, and a pervading spirit of servility replaced the former independence of thought and attitude that was prevalent when individuals had a sense of participation in the government and a sense of self-realization through the opportunities that freedom provided. The plebs and peasants were gradually bound completely to the soil by the emperors, and all semblance of economic freedom was lost. Such persons became serfs of the emperor, working and producing for his benefit. In some degree the same thing happened to workers in the cities and even to the merchants and manufacturers. They had to keep at work for the benefit of the emperor. They could not move or quit their jobs. Here was an ancient groundwork for the later development of medieval feudalism. As the old landowning yeoman class disappeared, so did the city middle classes when trade and commerce further declined in the face of local production.

To all these factors were added the constant wars against the Germanic tribes that kept beating against the borders and invading the Empire. Population declined rapidly as a lowering of the birth rate was added to an increase in the death rate caused by the wars, plagues, and famines. The old aristocratic families no longer maintained themselves for generations but now died out rapidly and were replaced by other and newer aristocratic families from the provinces. The status of marriage declined, and vice increased. Taxes became overpowering; the richer classes could no longer maintain themselves, while the lower classes had no means of income beyond subsistence on the land as serfs or by doles in the cities.

The emperors made matters worse by debasing the coin for their own benefit, and exchange reverted to barter and payments in kind or in produce rather than in money. Severe economic depressions became more common. As a last resort the lower classes flooded into the army to seek subsistence and livelihood as well as to satisfy a need for a sense of power and accomplishment.

As a result of all of these forces, society took the form of a great pyramid, with the emperor, his family, followers, army officers, and high ecclesiastics at the top, catered to by the wealthy merchants and speculators, and all resting upon the work of the masses in the city, the serfs on the land, and the slaves who rendered personal services in the houses of the rich. When the Germanic tribes invaded the Empire, the emperors could not summon up enough enthusiasm or stamina to stave off conquest and disaster. A heavy attitude of psychological weariness and loss of nerve had so weakened the mental and moral fiber of the people that they could not respond with the courage, devotion, and loyalty that were needed to face the invader. The weaker turned to whatever immediate pleasures they could find in such a life, and the stronger turned to faith and hope in a better life to come in the next world. The ideal of a good life on this earth was apparently impossible of realization, and thus more and more people began to seek salvation in the other world after death. Such an intellectual climate was fertile soil for the spread of religious faith and devotion. It was apparent that the failure to establish and maintain a genuine social, economic, and political democracy was largely responsible for the decline of Roman civilization, as had been true in Greece. A more widespread education might have provided a bulwark against the aristocratic exclusiveness that was at the root of cultural decay.

Religious Institutions

Family and state religions. Throughout the period of the Roman Republic and Empire the religious institutions of family and state played a large part in the private and public life of the people. The earliest religious beliefs of the Romans were similar to those of other primitive peoples, but the Romans emphasized family ties and the religion of the family. Drawing upon primitive beliefs that the heavens and earth were peopled by gods like human beings who helped or hindered the projects of man, the Romans developed a set of deities who were thought to rule the destinies of the family, each deity representing an important phase of the family's activities. Thus, the genius was the spirit of the master of the household; the manes were the spirits of the family's ancestors; the lares watched over the fields and crops; and the penates protected the storehouses and barns. On stated and proper occasions as

well as in their informal daily life the members of the family looked to these gods to bless their work and to protect the family from evil spirits and evil days.

The civic religion of the Romans was in large part a projection on a national scale of the family religion, but it became much more formalized and definitely prescribed as to ritual and ceremony. The patricians came to glorify the trinity honored on the Capitoline Hill, Jupiter, the guardian of the sky and of the state, Juno, and Minerva. The plebs of the city worshiped their own gods of industry and trade, Hercules and Minerva, and the yeomen of the country paid special homage to Ceres, the goddess of plenty and of grain, and to Dionysus, the god of the fields and the vine. The state eventually took complete control of the worship of the gods, and special guardians of the religious functions were set up by the state in the form of priestly guilds, or colleges (*collegia*).

The Pontifical College was the highest of these groups; it fixed the religious holidays and the kind of rituals to be observed and, in general, acted as the state's official custodian of all things religious. Other colleges were appointed to burn offerings to specific gods at the proper times, to study the flights of birds for omens of the future, to conduct military drills and dances in armor in honor of Mars, and to drive away evil spirits from the city. All important state ceremonials and undertakings were begun and closed with religious rites in order to discover whether the time and conditions were auspicious in the view of the gods and to ask their help. A citizen was thus obligated to know his place in the religious life of the state and to be able to fulfill his obligations. It is no wonder then that early educational practices of family and state included much of a religious character.

The parallel between the Roman religions and the Greek civic religions is marked. This similarity became even more striking in the second century B.C. as direct Greek influences were heightened. The Romans adopted many of the Greek gods and goddesses, and Roman buildings, temples, and statues took on an ever more Greek character.

With the advent of Augustus as emperor in the first century B.C. the character of the Roman state religion took another important turn, this time in the direction of a personal worship of the emperor himself. The belief in some sort of divine human being who would act as messiah and savior of the world had long been common among the people. When Augustus brought peace after the horrors and destruction of the civil wars, the people began to attribute divine powers to Augustus himself. He was not averse to this idolatry and encouraged it to such a degree that he became the personification not only of the majesty of the state but also of divine will. He united in his own person the ultimate re-

ligious as well as the ultimate civil power. The emperors after Augustus saw the desirability of keeping alive this union of civic and religious authority, but the ceremonies gradually became less meaningful and more formal until finally, by the time of Constantine, the emperors were obliged to give up the conception entirely.

Eastern religions. In Greece and in the eastern part of the Empire the intellectual classes of the second and first centuries B.C. found little satisfaction in the ancient gods, in worship of the emperor, or in the strictly rationalistic philosophy and science of earlier Greek culture. They began to be pessimistic about the conditions of everyday life as they had seen it disrupted by the Roman conquests. They thus turned to such philosophies as Stoicism, Epicureanism, and Cynicism, which dropped their earlier emphasis upon rational inquiry and built up systems of belief that were organized into bodies of doctrine to be accepted with little or no question. Stoicism was the most popular among intellectuals of the time of Augustus and reached its heyday in the first and second centuries A.D., finding expression in the writings of Epictetus, Seneca, and Marcus Aurelius, respectively a slave, a senator, and an emperor.

Those with less sturdy intellectual interests turned to Epicureanism, which had lost almost entirely the character that Epicurus had given it and had become a justification for simply enjoying life to the full. Ovid's poetry reflects this type of hedonism. Still others who were enticed by the mysteries of life and death turned to the Eleusinian mysteries of the Orphics or to Neo-Pythagoreanism and Neoplatonism, which gained a considerable following in the third century A.D. under the leadership of Plotinus and his disciples. All these philosophic religions represented attempts to combine a philosophic interest with religious emotionalism.

For the common people who had no capacity for philosophic interpretations the ancient local religions of the various parts of the Empire provided an outlet for their emotional and religious desires in the face of the political and economic disasters of the times. These ancient cults took on the character of evangelical religions and developed a body of doctrine, a definite theology, prescribed rites, ceremonies, costumes, and priestly hierarchies. From Thrace came the worship of Sabazios, the god of the forests, gardens, and vineyards; from Illyria came the worship of Pan; from Anatolia came the worship of Cybele, the goddess of fertility and mother of Zeus; from Persia came the worship of Mithras, the warrior god of the sun; from Egypt came the trinity of Isis, Serapis, and Harpocrates; and from the Jews came the worship of Jehovah, the god of love, justice, and power. The Empire was swept from one end

to the other by religious beliefs that mingled or established themselves side by side with the family and civic religions of the Romans.

The triumph of Christianity. In the first two centuries of the Empire, Christianity, in the eyes of most people, was simply another Eastern religion among many, which gradually won converts, especially among the lower classes of the towns and cities. Beginning as a local Jewish sect in Palestine, the Christian groups and beliefs gradually gained adherents in all parts of the Empire. St. Paul was especially instrumental in promoting the faith among many of the peoples of the Eastern Empire. He had studied Greek philosophy, especially Stoicism, and after his conversion wrote extensive letters and preached in person through most of the Greek world of Asia Minor, the Aegean Islands, Thrace, and Greece itself.

As the Christian sects and congregations gained followers, they came into conflict with the other religions and eventually with the emperors. It is not altogether clear why the Christians were persecuted by the emperors. Perhaps it was their insistence upon the worship of one God and their refusal to worship the emperor, which was by inference an illegal or traitorous act; perhaps it was their refusal to engage in the usual civic ceremonies and games, which exalted the emperor and pagan gods; perhaps it was their refusal to serve in the army because they believed it involved useless killing; perhaps it was their growing reputation for living strictly moral lives, which led them to be looked upon as "queer" and therefore as dangerous. Whatever the reasons, they increasingly became a concern to the public officials of the state. Nero found them a useful scapegoat upon whom to blame the burning of Rome, much as the Nazis used the Communists on the occasion of the Reichstag fire. Under other emperors in the first and second centuries A.D. there were intermittent and irregular persecutions, which arose from distrust or fear of these groups who could not be swayed by punishment but even thrived on martyrdom, supremely confident in the righteousness of their cause and their faith.

With the increasing trials of the Empire in the third century and the ever-increasing strength of the Christians the emperors apparently felt that the time had arrived to call a halt. Under Decius and Diocletian systematic attempts were made to reassert the absolute power of the emperors and to wipe out the Christian congregations as a means to this end, but the Christians could not be stopped. As the Empire emerged from the third century weakened and shaken, the church emerged stronger than ever. The church had won the first of its many centuries of battles with the state.

Finally, in the fourth century the attitude of the emperors changed; they found apparently that it was the better part of wisdom 'to be

tolerant and eventually to gain the support of such a powerful institution. An edict of Galerius in A.D. 311 granted to Christians the legal right to worship their God, and in 313 Constantine gave the Christians full legal rights. Further, Constantine recognized Christianity as the official state religion when he called the Nicene Council in A.D. 325 and presided personally over its deliberations. Churchmen came to this council from all over the Empire and there sought to determine an orthodox doctrine that would unify the whole church.

Despite a temporary setback under Julian in the fourth century when the pagan gods were again brought into prominence, the triumph of Christianity was achieved when Theodosius set out to suppress the worship of the old Roman gods as a crime against the state and to give legal protection *only* to Christians. Theodosius was the last emperor to rule over the full extent of the Empire; after the beginning of the fifth century the separation into Eastern and Western Empires was complete; and the greatest power in the Western Empire was the Roman Church. In the sixth century the Eastern emperor, Justinian, made the last great attempt to unify the Empire once more into a single world state. A strong believer in Christianity as a means to this end, he showed his desire to stamp out paganism in A.D. 529 by closing the doors of the philosophic schools at Athens, which had existed since the time of Plato and Aristotle. This was another sign that the classic culture was giving way to medieval culture.

In its rise to power the Christian Church was favored not only by the force of its doctrine and faith but also by the gradual perfecting of its organization as an institution. Over the centuries the church patterned its organization after that of the Empire and thus became increasingly hierarchical in form. At first the Christian sects were relatively independent communities of believers, but gradually a more centralized system of organization was built up in the face of persecution and of the problems attendant on rapid growth. In the local communities and small districts within cities the church appointed parish priests; in the cities the church established bishops to be in charge of all church affairs in their jurisdiction; in the imperial provinces the church established metropolitans, or archbishops, who governed the bishops in their territory; and in the diocese (a group of provinces) the church appointed patriarchs. This type of centralized control was fairly well established by the fourth century.

Eventually, the bishops of Rome were able to claim jurisdiction over the entire Western Church and came to be known as popes. This process seems to have been completed by the time of Pope Leo the Great in the fifth century. The supremacy of the bishop of Rome was aided by the fact that Rome was still looked to by the West as the

physical, spiritual, and economic center of the Empire. In addition the claim was increasingly made and established by the bishops of Rome that since the church at Rome had been founded by St. Peter, who had been designated the chief apostle by Christ himself, therefore the bishops of Rome were the legitimate apostolic successors of Christ through Peter. The conception of a united Christendom played an enormous role in the political and economic affairs as well as in the spiritual and religious affairs of the Empire and the Middle Ages.

THE IDEAS MEN LIVED BY

The Cycle of the Roman Mind

Prior to the third century B.C. the Romans were largely untouched by Greek culture but developed their own peculiar qualities of character and intellect. Quite naturally, they idealized the characteristics and qualities of mind that were appropriate to rugged, agricultural, and warlike primitive tribes. The qualities that Romans honored above all others show the almost puritanical strain in their lives: *pietas* (filial duty and patriotism); *virtus* (courage and honor); *honestas* (integrity and honesty); *gravitas* (seriousness and dignity); *constantia* (stability of character); *prudentia* (practical business virtue). Apparently the ideal Roman was one who undertook seriously his family obligations, his civic duties, and his business or farming activities with sincerity, dignity, and forethought.

In the third, second, and first centuries B.C. Roman intellectual life received a tremendous stimulus from the introduction of Greek thought, literature, philosophy, science, and religion. Beginning as a result of the very practical need to meet Greek traders on even terms, the desire to learn the Greek language grew apace, until at length Greek scholars began to pour into Rome and Roman intellectuals began to study and be influenced by Greek thought. Of course, there was opposition to the Greek influence by such men as Cato the Elder, who saw nothing but evil for Rome in Greek culture; but even he capitulated finally, and in general most Roman intellectuals of the Republican period were nourished on Greek thought.

A new period began in the time of Augustus and lasted into the second century A.D. This was the period when a unique Latin literature expressing the national spirit of Rome ushered in what is usually called the "golden age" of Latin thought. In these days of Cicero, Lucretius, Catullus, Vergil, Horace, and Ovid, Latin literature for the first time rivaled the creative literature of Greece, and the purely imitative phase of Latin literature had passed. With regard to intellectual patterns, however, most of Latin thought was at its basis Greek in origin and

content, and it produced no creative genius that towers in intellectual history along with Plato or Aristotle.

The last creative stage of Roman thought began in the second and third centuries, when Christian thought produced a new optimism in the form of faith and happiness through religion and hope in the next world. The church fathers of the Greek and Latin worlds formulated the teachings of Jesus into a body of doctrine that would appeal not only to the lower classes but to the despairing intellectual classes, who had lost their faith in Greek philosophy as a solution to their intellectual and moral problems. The center of gravity shifted from an interest in political and social improvement to an enchantment with salvation of the spirit, which had become more important than physical freedom and happiness.

On the positive side Christian thought gave new hope and new vitality to Greek thought by injecting into the old Greek forms of philosophy the new substance of salvation and theology. On the negative side the well-springs of creative thought that had caused Greek classical philosophy to flower had apparently dried up, and creative conceptions in physical science and political philosophy had to await the passing of the centuries before they received new form and new substance. As the third, fourth, and fifth centuries progressed, Roman intellectual life, with the exception of Christian thought, passed into its decadent and antiquarian phase, from which it did not emerge until it received new impetus and new sources of creativeness during the Middle Ages.

Man and Nature

The principal formulations describing beliefs concerning the nature of the world and the relation of man to nature were made in Roman times by Latin followers of the Greek philosophies and by the church fathers. The dominant trends in Roman thought were shot through with the idealism of Plato. They stressed the permanent and absolute character of spiritual affairs as against the transitory quality of everyday affairs. The Stoicism of Epictetus, Seneca, and Marcus Aurelius and the Neoplatonism of Plotinus gave new force to the idealistic tradition among the intellectual classes. According to Stoicism, the individual should guide his own life with rigid discipline and unconcern for the vagaries and passing fortunes of the material world. Plotinus stressed a mystical process by which the individual could be drawn up into complete union with the divine by means of faith, restraint of bodily desires, and exaltation of the spiritual qualities.

At the opposite extreme, Lucretius used his poetry as a philosophical vehicle for Epicureanism. In his *De rerum natura* Lucretius preached the materialistic doctrine that the world is made up of atoms falling

in space, there being no spiritual or divine control over human destiny and no life after death. Blasting the Platonic and Stoic conception of man as essentially spiritual, Lucretius insisted that man's soul is mortal as well as his body and that therefore there is no need to fear death or to prepare for it. The converse, of course, is that one may enjoy the pleasures of this life to the full without concern for punishment afterward. Lucretius preached atheism with the passionate zeal of an evangelist and used all his poetic artistry to attack religious superstitions and extol what he believed to be the rational life.

Whereas the Greeks had looked upon the dualism of the body and the soul as an opportunity to develop both harmoniously, the tendency of Roman times was to exalt one or the other to the extreme. Stoicism and Neoplatonism glorified the soul, whereas most Epicureans glorified the body even to the extent of denying the existence of the soul. The problem thus posed was settled for centuries by the victory of Christianity. By the force of His teaching and the power of His message Jesus gave to the world a belief that had for one of its main doctrines that the passions of the body should be subjugated to the will and the spirit. His was a personal appeal to the heart and emotions of man, assuring to each person eternal salvation if his relationship to God is right. He taught that every human being is the child of a loving, heavenly Father. This personal care of God for His children was a new element in the tired world of the Empire. Each person must be guided by a righteous heart and soul and not merely by correct forms and ceremonies if he is to achieve lasting happiness and blessedness in the kingdom of heaven. It was this ethical and spiritual message that began the conquest of the Roman world.

It was soon discovered, however, that the size and complexities of the Empire, the varieties of peoples that made it up, and the strength of the Greek philosophic traditions were problems to be overcome if Christianity were to become the universal religion. Thus it was that the church organization was perfected to meet the demands of the size of the Empire. Further adaptations were also made. Because the common people were so accustomed to ceremony and ritual, the Christian Church soon set up its own ceremonies and customs, which had much in common with those of the other religions of the day, such as the reverencing of minor saints, martyrs, and relics, baptism, and religious holidays. Finally, Jesus' teachings were institutionalized over the centuries into bodies of doctrine that incorporated much of the form and content of Greek, and especially Platonic, philosophy. In part this was done consciously in order to attract the intellectual classes, and in part it was done unconsciously, for most of the early Christian fathers had already been trained in Greek philosophy before they joined the church. From

the second to the sixth century A.D. the fathers developed, organized, systematized, and elaborated church doctrine, using the teachings of Jesus, Biblical writings and commentaries, the decrees and writings of the bishops, the decisions of the church councils, and Greek philosophical writings. Such men as Basil, Origen, and Chrysostom in the East and Tertullian, Cyprian, Ambrose, Jerome, Augustine, and Gregory in the West brought a great flood of Greek philosophical content into Christian theology from which it has never completely departed.

In general, the Christian theology of the fathers sided with the idealism and dualism of Platonism as against the materialism of Epicureanism. In this view the world is ruled by an all-wise, all-good, all-powerful God, whose essence is spirit and who wages perpetual war against the world of matter, of evil, and of the devil. Man consists of a soul and a body and is thus an admixture of potential good and evil. Since the evil triumphed in the fall of Adam, each man must overcome the handicap of that sin, but he can achieve spiritual grace and salvation through his immortal soul. The means by which he may be saved through faith in the intervention of Christ are revealed and fixed by the church. Cyprian established as early as the third century A.D. that communion with Christ is impossible without adherence to the church.

The church found it necessary to reconcile all sorts of differences that arose concerning the true doctrine. One of the most important of these controversies was settled at the Nicene Council called in A.D. 325 by Emperor Constantine. Arius had maintained that God and Christ are only similar in substance and that Christ was essentially a human teacher rather than completely divine, whereas Athanasius insisted that the Father and Son are identical in substance and that the Trinity is manifested in three persons, God the Father, God the Son (Christ), and God the Holy Ghost. The council decided in favor of Athanasius, whose doctrine became the orthodox one. From that time on, all deviations from the orthodox were increasingly persecuted as a danger to the church, to the state, and to morality.

Despite its reliance upon Greek philosophy, Christian theology departed from the Greek emphasis on reason by insisting upon the moral, ethical, and emotional role of faith as against the ability of human intelligence alone to achieve happiness. It further established the realm of true happiness to be in the future life of the "other" world of spirit rather than in the present life of this world of matter and things. The primary motive for good conduct was now not in human reason or in the welfare of human society but lay in the strength and authority that comes from reliance upon God and belief in the justice and peace of the next world after death. As moral authority thus was changing its

center of gravity, the classical tradition of ancient Greece and Rome was giving way to the Christian tradition of the Middle Ages.

Learning and Intelligence

During the Republic the most outstanding formulation of the role of intelligence in human affairs was made by Cicero. In general, Cicero argued that knowledge should be viewed as a practical guide to action in the affairs of public and private life. Centering his interest in the orator as the best type of public figure, Cicero maintained that the good orator must have a broad general education, a knowledge of the whole range of liberal arts, and a philosophical background. Thus armed, the orator would be equipped to make sound decisions and to guide others in arriving at wise practical judgments. Knowledge was definitely looked upon as a guide to making decisions; the "more humane letters" were viewed not as a frosting of "culture" but as a means of putting intelligence to work at the job of solving the problems of this world.

Quintilian in the Early Empire followed in Cicero's footsteps in his interest in the use of human reason as the supreme guide to conduct. However, he insisted that the principles of moral conduct should rest not with the philosophers but with the orators, who should be recognized as the leaders of public policy. Quintilian's antagonism toward the philosophers of his day revealed that he felt that philosophy was forsaking important everyday concerns for flights into the nonpractical world of spiritual affairs. The sweep of political, economic, and religious events in the Empire, however, was against Quintilian, and his voice was less and less heeded until reemphasized in the time of the Renaissance thirteen centuries later.

The trend was in favor of the philosophers, Stoics, Epicureans, and Neoplatonists, all of whom became less and less interested in the public and practical affairs of the community and the Empire. Stoicism lost its early interest in the affairs of the state, became indifferent to the ordinary business of life, and held that the principal use of reason is to attain a perfect equilibrium of the soul (*ataraxia*). Epicureanism played down rationalism as a guide to the improvement of conduct and gave itself up to enjoyment of the incidentals of life. Neoplatonism, especially in the hands of Plotinus, glorified the mystical and spiritual powers of the soul as the guide to conduct. Thus the Roman philosophies took a religious turn and dropped the original rationalistic emphasis of Greek and Republican times.

Christianity completed the process by making human reason and intelligence an instrument for the explanation and justification of religious doctrine rather than the ultimate resource for human beings as a guide

to their conduct. For example, St. Augustine insisted that reason is given to man by God in order that man may comprehend all things, including God himself. Reason is the eye of the soul, by which man is enabled to see truth directly without reliance upon the senses. Wisdom is the highest truth, and wisdom is God. True philosophy is therefore true religion, and both strive for the same eternal truth. St. Augustine followed Plato's idealism in believing that truth, knowledge, goodness, and beauty are eternal, permanent, and unchanging. They constitute the will of God and thus are given to man as innate ideas. Although faith is possible only to a person endowed with reason, yet faith is superior to reason. Chronologically, faith precedes reason: in order to understand a thing we must first believe in it.

With these arguments human intelligence and human reason were made to serve the cause of religious faith and belief. When St. Augustine made reason subservient to theology, he set the pattern for Christian thought until the Scholastic battles of the Middle Ages. Likewise, the long struggle between rationalism and empiricism that had arisen in Plato's time was settled for centuries in favor of a religious rationalism. The empirical point of view with its reliance upon sense experience as the source of knowledge and upon human intelligence as the guide to human conduct was kept in abeyance, save for exceptions to be noted later, until the time of the Renaissance.

Social Role of the Arts and Sciences

The rise and decline of scholarship. The cycle of Latin and Greek intellectual life in Roman times can be illustrated in the development of the various bodies of organized knowledge as well as in the dominating conceptions of nature, human nature, and intelligence. Three fairly well-defined periods of development seem to stand out. The first period, which consisted of the third, second, and first centuries B.C., may be called the Hellenistic-Republican period. During this time much creative work was done in Greek science and mathematics, especially in the eastern part of the Mediterranean world, with centers at Alexandria, Rhodes, Pergamum, and Antioch. In the field of language arts, literature, and philosophy the Greek scholars of the East were beginning to codify and systematize the bodies of knowledge that have come down to us as grammar, rhetoric, and logic. Meanwhile, the Latin authors of the West were beginning to assimilate for their own uses the great creative products of Greek literature and philosophy that had been created in the sixth, fifth, and fourth centuries B.C. in Greece, and especially in Athens.

The second period, which covered the first century B.C. and the first and second centuries A.D., may be called the Early Imperial period.

During this time the creativeness of Greek thought in the East had lost its force both in philosophy and literature and in science and mathematics, and the emphasis on systematizing and reworking older materials remained strong. Meanwhile, creativeness in literature and the language arts shifted to the Latin writers of the West, and in turn the Western world began to assimilate the results of Greek science and mathematics of the preceding period.

The third period, which lasted roughly during the third, fourth, and fifth centuries A.D., may be called the Later Imperial period. During this time scholarship in both the Greek and the Latin worlds lost its creativeness in science, mathematics, philosophy, language, and literature and turned almost wholly to editing and digesting the knowledge that had been codified and systematized in earlier periods. It was almost as though the Later Imperial authors saw hard times ahead and eagerly sought to reduce scholarship to compact form, in small compendiums, so that it might weather the rigors of the intellectual depressions to come. Only in the field of religious thought and theology was the creative spirit alive in the Eastern and Western worlds as the church fathers sought to reconcile Greek philosophy with the doctrines of Christianity. Much systematizing and editing were inherent in this process.

Rome formulated the seven liberal arts. One of the best illustrations of the course of intellectual thought in the three periods just mentioned is the development of the liberal arts as they were drawn from Greek sources, modified by the Latin authors, and made ready to be passed on to the Middle Ages. By the third century B.C. the liberal arts of Greece were more or less commonly regarded as including on the elementary level, grammar, gymnastics, music, and sometimes drawing, and, on the advanced level, arithmetic, geometry, astronomy, musical harmony, logic, rhetoric, and philosophy.

During the Hellenistic-Republican period the codifying and systematizing of the liberal arts at Alexandria and elsewhere in the East are represented by the work of the Hellenistic grammarians and rhetoricians and by the work of Euclid, Archimedes, Aristarchus, Hipparchus, and Eratosthenes in the mathematical sciences of arithmetic, geometry, and astronomy. The expansion of knowledge in these subjects made it likely that they would be added permanently to the liberal arts.

Meanwhile in the West the Latin scholars had begun to draw upon the Greek studies and to proclaim the values of the liberal arts. The work of Varro in the first century B.C. was outstanding. He sought to establish nine of the Greek studies that he believed should constitute the necessary equipment of the liberally educated man. He wrote treatises on the following studies: grammar, rhetoric, logic, arithmetic, geometry,

astronomy, music, architecture, and medicine. Interestingly enough, he dropped gymnastics and drawing from the usual Greek curriculum and added architecture and medicine. Varro's selections have been explained on the theory that he was attempting to carry over into Latin education only those phases of Greek knowledge in which Greece was superior to Rome.¹

Inasmuch as he did not include all the fields of knowledge developed systematically by the Greeks, Varro apparently had concluded that Greece was not superior to Rome in agriculture, mechanics, and engineering. Furthermore, he apparently could find no *science* in the fine arts of painting, drawing, and sculpture, but he could justify architecture and medicine, as well as the other seven, on the basis that they had been developed systematically to such a degree that they could be handed down from teacher to student and taught to others. Thus, in Varro's compendium of the liberal arts two principles of selection were at work, namely: (1) Liberal arts were confined to Greek studies. (2) Liberal arts were confined to what Varro believed were Greek scientific studies, that is, bodies of organized and systematic knowledge. However, Varro was not able to establish his classification of the liberal arts as an accepted part of Roman education; for Cicero, who was interested in the subject, never named an exact number of liberal arts, and in the Early Imperial period there seems to have been no fixed number agreed upon by all scholars. In the first century A.D., Seneca spoke of the liberal arts in a very indefinite sense, and Quintilian did not limit them to any specific number.

It was not until the Later Imperial period that the number of liberal arts was fixed at seven. This was done by Martianus Capella. It is interesting to note, as revealing the intellectual temper of the times, why it was that Capella in the late fourth century A.D. turned to Varro's list of nine liberal arts and then cut them down to seven. In his famous little allegorical compendium called the *Marriage of Philology and Mercury*, Capella describes a heavenly wedding in which the seven liberal arts act as bridesmaids. He names grammar, rhetoric, logic, arithmetic, geometry, astronomy, and music. His justification for reducing the number to seven was that he wanted to keep only those arts which would interest a group of celestial and spiritual beings. He left out medicine, because celestial beings had no earthly ills, and he left out architecture, because spiritual beings needed no physical habitation. In other words, he did not include the physical or mechanical sciences, as he understood the terms, because they were so closely related to material and mundane interests that they were not suitable for spiritual, intel-

¹ See H. PARKER, "The Seven Liberal Arts," *English Historical Review*, 5:417-461 (July, 1890).

lectual, and therefore liberal beings. Music could stay in the list because it was primarily a "pure science" and therefore fit for "supermundane" interests. Thus, a third principle of selection was at work, namely, Capella's interest in spiritual and intellectual rather than in practical or physical things.

Here, then, by the end of the fourth century was a compendium of knowledge that did not comprise the entire range of subjects known to Greece or Rome but that did eventually fix the bounds of the medieval curriculum in the liberal arts. The liberal arts had been formalized and condensed from the Greek heritage into small literary packets of knowledge, and they had come to be identified with those systematic studies of Greece which had been translated into Latin and which were thought to be suitable to spiritual and intellectual affairs rather than to material affairs. These are some of the historical reasons why a "liberal education" in its traditional form has so often been exclusively linguistic, literary, and mathematical in content and has so often been opposed to a "useful" or "practical" education.

It should be noted further that Capella was not a Christian but represented the Later Imperial interest in otherworldly affairs, a spirit highly appropriate to the intellectual climate in which Christian theology and doctrine were being formulated. Many of the church fathers in the East had favored Greek philosophy and literature as suitable for study by Christian scholars. Among these were Justin Martyr, Clement, Origen, and St. Basil. In the West, however, the story was different; despite the fact that most of the Latin fathers had been brought up on pagan studies, many of them turned against them. Among these were Tertullian, St. Jerome, St. Augustine, and St. Gregory the Great. In general, however, it was difficult even for these men to divorce themselves completely from the cultural and intellectual heritage of the times in which they lived. In the fourth century, before his conversion, St. Augustine himself had written treatises on the values of six of the seven liberal arts. His influence was so strong that despite his later antipathy for pagan studies he really helped to prepare the way for assimilation by the church of the secular liberal arts, a process completed by Cassiodorus in the sixth century. By that time the pagan schools had so declined and the church had become so victorious that church leaders had no longer any cause to fear the pagan liberal arts. In any case, they had been so transformed in spirit and content that they had become appropriate to the medieval outlook of religious otherworldliness.

Language arts and literature. In the Hellenistic-Republican period the term "grammar" had a far wider meaning than in modern times. It meant not only the study of syntax, syllables, parts of speech, declensions, and conjugations but also the study of poetry and literature in

general. An outstanding Greek grammarian of the second century B.C., Dionysius Thrax, did much to codify grammar by writing a most influential textbook, the oldest known, which was a model for centuries. Countless other Greek grammarians in the third and second centuries B.C., especially at such Hellenistic centers as Alexandria, edited the Greek poets and made of Greek grammar a logical and systematic body of knowledge through their work in compiling word lists, dictionaries, and reference books. During this period Latin authors began to assimilate and copy into Latin the work of the Greek grammarians in order to build up an organized study of Latin grammar. Among these were Varro, Cicero, and Quintilian.

In the Early Imperial period specialized Latin grammarians replaced such general scholars as Varro, Cicero, and Quintilian and began to write systematic texts on Latin grammar. However, the most prolific period of textbook writing on Latin grammar was the Later Imperial period. Perhaps the most influential grammar of all time has been the *Ars grammatica minor* written by Aelius Donatus in the fourth century A.D. It is a short description of the eight parts of speech, elaborating the definition and characteristics of each in question and answer form. Another most influential grammar, that of Priscian, is a much longer and more advanced work containing more than 250 quotations from many different Greek and Latin authors, as well as material on syntax, conjugations, and declensions. The grammars of these men and scores of others went through many editions and were copied, edited, and commented upon in turn by generations of other grammarians. As the Middle Ages approached, the content of grammar came to be more and more condensed into small digests for use as textbooks in the schools rather than as tools for scholarly research.

Much the same cycle of events took place in the field of literature. In the Hellenistic-Republican period the peak of creative production in Greek literature had passed, but the creation of a native Latin literature was just beginning. In the third century B.C. Naevius, usually considered the first native Latin poet, expressed strong national feelings in his poetical history of the Punic Wars and patterned his works after the greatest Greek models rather than those of the Alexandrians. Of more importance was the work of Ennius (239 to 169 B.C.), who virtually created Latin hexameter verse and whose poetic history of Rome was the great national poem until the time of Vergil's *Aeneid*.

Livius Andronicus, a Greek scholar in Rome, translated the *Odyssey* into Latin in the late third century B.C., and from then on Greek literature flooded into Rome. Poetry and plays in Greek were introduced into Rome; Crates, the head of the library at Pergamum, went to Rome and found popular audiences for his lectures on Greek literature.

Plautus and Terence rewrote many Greek plays and translated them into Latin, copying principally the new comedy of Menander and other Hellenistic writers. In giving creative form to Latin prose Cicero was greatly influenced by Greek philosophy, rhetoric, and literature. His development of a refined style, formal diction, and literary allusions made his letters and orations the most popular prose examples of Latin style for centuries.

In the realm of poetry the two greatest names in this period are Lucretius and Catullus. Lucretius used poetry as a vehicle for his extreme Epicurean materialism. He was not so popular as Horace or Vergil, but his *De rerum natura* has the qualities of an epic of the universe, with its loftiness, vigor, and imagination. Catullus, on the other hand, reflects the gaiety, sophistication, and dissipation of the highest Roman circles and wrote the most intense and passionate of Latin love lyrics.

In the Early Imperial period Latin literature reached its creative peak in the works of Vergil and Horace. Vergil's *Aeneid* stands as the greatest epic poem of the Roman national life and became the textbook for countless generations of students of Latin as well as a model of the sweep and power of Latin verse. A master of Latin lyric form, in his *Satires*, *Odes*, *Epodes*, and *Epistles* Horace criticized from the viewpoint of the sophisticated artist the life and times of Augustan Rome. Soon, however, Latin literature became more romantic in form and content; it turned to escape, imagination, overcultivated refinement, mysticism, or bombast in place of the classic emphasis upon simplicity, restraint, and austerity. Among the better known of such writings were the tales of Phaedrus, the epigrams of Martial, the satires of Juvenal, and the letters of Pliny the Younger.

In the Later Imperial period the Christian writers reacted against the weariness, pessimism, and despair of the pagan writers and turned to the Christian ideals of salvation described by such Eastern fathers as St. Athanasius, Eusebius, and St. Chrysostom and by such Western fathers as Tertullian, St. Cyprian, Lactantius Firmianus, Ausonius, St. Augustine, and St. Jerome, the latter of whom translated the Bible into a popular edition of Latin known as the Vulgate.

For the rest, most of the Later Imperial writers compiled textbooks, digests, and collections of quotations, many of which were used as readers to aid in the learning of Latin. Perhaps the most famous and influential of these readers was the book of rhymed couplets written by the fourth-century Stoic, Cato; his *Distichs* was studied for centuries down to the time of Benjamin Franklin. Such textbooks became the provender on which the Middle Ages were nourished. They contained

much of the heritage of Greek and Latin literature in a predigested form, but although they sustained life they provided scant nourishment.

Rhetoric, as one of the language arts dealing principally with the study of the art of expressive speech, both oral and written, went through an interesting course of development. In Hellenistic-Republican times it was looked upon as the highest of the studies that the aspiring Roman youth could follow. This is revealed by the influence of the rhetorical writings of Cicero, who leaned upon Aristotle and Isocrates for his inspiration and reached the height of Latin rhetoric in style and content. In the Early Empire Quintilian followed in his footsteps and called for a return to the classic ideals of rhetoric as exemplified by Cicero. As the Imperial period progressed, however, there was less and less practical outlet for the arts of rhetoric and oratory, for public discussion no longer had the determining effect upon public policy that it had in the Senate and Assembly of Republican Rome. Rhetoric came to be increasingly a dilettante exercise in formal language for the benefit of a wealthy, leisured, and sophisticated class. The study of rhetoric changed from a broad preparation for public service to a narrow study of the details and techniques of delivering formal speeches and orations.

What had been the art of persuasion to the Greeks and to Cicero and Quintilian became an artificial elegance of language without conviction or strong feeling. The oration, which had been an important instrument for deliberation and decision, became an elaborate discourse to be delivered on some special occasion such as a funeral, anniversary, or ceremony when "celebration" was important but not decision. Whereas hundreds of textbook editions were being prepared in grammar, there were relatively few such books on rhetoric written in the Later Imperial period. The best known were those of Capella and St. Augustine. Cicero and Quintilian were always the models, but their original works were seldom used in full. These small handbooks and manuals illustrate the way in which the creative literary heritage of Rome was wrapped up in small packages for the use of scholars and students in the Middle Ages.

One of the most important phases of the transition in Roman intellectual history is the change that took place in the meaning of and regard for philosophy. To Plato philosophy had been the highest form of study dealing with the ultimate reality and nature of things. He called such study dialectic or dialectics, and all other studies were subordinate to it. Dialectic was thus much more inclusive than simply the study of the rules of thinking, which in Aristotle's hands came to be known as logic. However, logic and dialectics gradually came to be virtually synonymous and by the end of the Roman Imperial period

had become a preparatory study. "Philosophy" thereafter included principally metaphysics (theory of reality) and epistemology (theory of knowledge), whereas logic was simply devoted to the rules of deductive logic and the syllogism based upon Aristotle's *Organon*.

Philosophy fell into disrepute as a pagan study in the eyes of some of the early church fathers, but by the end of Roman times it had emerged again, not as one of the liberal arts and not as the highest study of all, but as the handmaiden of theology. Metaphysics and epistemology were largely devoted to a reworking of the philosophies of Plato and Aristotle, first by the Stoics, Epicureans, Neoplatonists, and Neo-Pythagoreans during the Early Imperial period and then by the Christian theologians during the Later Imperial period.

Logic, meanwhile, became firmly established as one of the seven liberal arts, gradually losing its identification with philosophy as a whole. Among those who helped to pass on Aristotle's logic, which was the basis of all medieval logic, was Porphyry, a Neoplatonist of the third century A.D., who wrote a textbook in which he edited Aristotle's logical works and added an introduction of his own. This book was handed down through many commentaries and editions for centuries. Although Porphyry was interested in the whole range of metaphysical and philosophical thought, he specifically ruled out such problems as beyond the scope of logic. This distinction apparently suited Capella and St. Augustine, who wrote the other two notable texts on logic, both of which became important handbooks during the Middle Ages. These books treated of the definitions of words and propositions and the use of the syllogism. Logic came to take its place along with grammar and rhetoric as one of the three elementary liberal arts, the so-called "trivium" of the medieval liberal arts.

Mathematics and science. The quadrivium, or four higher liberal arts, came to include arithmetic, geometry, astronomy, and music, all conceived as basically mathematical studies. Despite the advances made in the field of arithmetic by Hellenistic scholars at Alexandria, little use was made of these developments in the liberal arts and thus little was known of them in medieval times. In the Early Imperial period the outstanding work on arithmetic was written by Nicomachus, a Neo-Pythagorean scholar of the first century A.D. This work was the basis of most of what was written for centuries in arithmetic texts. It included some elements of computation or practical arithmetic, which centered in the computation of the date of Easter, involving rules for finding the date of the first Sunday after the first full moon after the vernal equinox. Computation with Roman numerals was very difficult and rarely extended beyond three figures. As a Pythagorean, Nicomachus was principally interested in the theory of arithmetic, and he

gave much attention to the mystical and symbolic properties and relations of numbers. Capella's very brief chapter on arithmetic followed Nicomachus closely, and in line with his interest in spiritual affairs he also made much of the mystical significance and properties of numbers and gave virtually no attention to the problems of computation. Arithmetic thus became, not a practical means for solving useful problems as it had been among Egyptians and earlier Greek scholars, but an intellectualized, even spiritualized, exercise in mysticism.

Geometry followed a similar decline. The great advances made in geometry in Hellenistic-Republican times in the hands of Euclid, Apollonius, and others were largely discarded in the Later Imperial period. In this way geometry lost much of its mathematical character, reverted more or less to the literal meaning of the word, measurement of the earth, and thus became principally geographic in character. Despite the fact that the engineers and surveyors of the Later Empire could compute the areas of triangles, circles, and quadrilaterals for practical purposes, Capella described geometry as though it were geography, naming important historical locations and leaving to the end of his treatise a few sketchy definitions of the line, triangle, circle, pyramid, and cone. As a result, the great achievements of Hellenistic geometry were scarcely known to western Europe until the tenth and eleventh centuries.

The story of astronomy was again similar. The Hellenistic scholars of the East had made enormous advances in the knowledge of the procession of the stars, moon, and equinoxes, describing the length of the solar year, finding the circumference of the earth, and showing that the earth revolves around the sun (heliocentric theory). Again much of this knowledge formulated by such scholars as Aristarchus, Eratosthenes, and Hipparchus seems to have escaped the attention of the Early Imperial astronomers, who turned to Aristotle's works *On the Heavens* with its geocentric theories that the earth was the center of the universe. Ptolemy in the second century A.D. brought together much of the ancient information on astronomy and wrote a book that was enormously influential in all western Europe, for its principles were passed on to the Middle Ages through the medium of Capella. These Ptolemaic doctrines prevailed until the reassertion of the heliocentric theory by Copernicus in the sixteenth century.

Music. In Greek life music had been joined with poetry and dancing as a part of the moral, civic, and religious expression of the times. In Hellenistic-Republican times, however, music as a medium of instruction became separated from playing, singing, and dancing and became identified with theoretical and mathematical exercises. Pythagoras and Plato had emphasized the mathematical properties of music, and Plato had disparaged the practical musician as a mere practitioner. It was

this latter conception of music that was selected by Roman writers and exalted as early as the time of Cicero. Hence it is no wonder that Capella followed their mathematical and theoretical interests when he came to define music as one of the liberal arts. The Roman world dropped the Greeks' functional use of music in actual life but retained the Greek theory of music with its tetrachordal scale and lack of harmony. Church music began to depart from the Greek emphasis upon stately rhythm, prosodic measure, and simple and classic dance and song. Instead, it began to emphasize the qualities appropriate to the Christian faith, the prayerlike chants, the awestruck and humble religious lamentation, and the emotional expressions of hope and love. On the practical side church music became more creative than the theoretical study of music based on Greek theory. It was not until the Middle Ages broke away from the "liberal-arts" conception of music as mathematics that the modern developments of music were possible.

Science. Mention has already been made of the creativeness of the Hellenistic scholars in the fields of physical and natural science, so akin to geometry and astronomy that they cannot be fully separated. In addition to those already mentioned as prominent in the Hellenistic-Republican period one more scholar may be named as perhaps the last great creative scientist of the Greek world, namely, Posidonius, a Syrian Greek who worked principally at Rhodes in the first century B.C. Posidonius made original discoveries in physical geography, astronomy, and mathematics and in reference to the processes of the tides and volcanoes as well as the ethnography of northern Europe. The transitional character of his writings is revealed, however, in his reliance upon astrology, and the mysticism and spiritualism that infused his works.

In the Early Imperial period Pliny the Elder wrote an influential *Natural History* containing 37 books of encyclopedic information on the arts, sciences, and inventions. Some historians believe that Pliny is next to Aristotle in importance and influence as a scientist. He relied much upon Greek sources and quoted his authorities carefully, but despite this his history contains much unnatural as well as natural history. In the Later Imperial period investigations in science fell off in originality and relied principally upon borrowing from former works, reminiscent and credulous and much concerned with miracles and revelations. Because science dealt with the natural and physical phenomenon of the changing world men lived in, it was not considered as one of the liberal arts, which were to be devoted to the unchanging and spiritual realm of the intellect. Plato's idealism had won its point over Aristotle's emphasis on science and was to maintain this superiority until the thirteenth century.

Medicine. The science of medicine was advanced considerably during the Hellenistic-Republican period both in the East and in the West. At Alexandria and other Hellenistic centers Greek physicians continued their investigations in anatomy, physiology, and dissection to the extent that some fundamental conceptions were established concerning the brain's relationship to the nervous system, the character of veins and arteries, and the processes of digestion and reproduction. As early as the third century B.C. Greek physicians appeared in Rome and continued their practice so successfully that Romans began to accept medical practices rather widely. The fact that Varro included medicine as one of the liberal arts would indicate that he believed that the Greek science of medicine had been greatly developed and was worthy of a high place in Roman estimation. The most famous physician of all was Galen, whose books written in the second century A.D. were used extensively throughout the Middle Ages until the development of modern medicine in the sixteenth and seventeenth centuries. In general, the Romans made large contributions to medical practice through the establishment of civilian hospitals in the cities and military hospitals for the army and navy as well as through the public support of municipal physicians. "Socialized medicine" apparently has very deep roots.

Engineering and architecture. In the fields of engineering and architecture Rome made great strides both in respect to technical perfection and artistic quality. The construction of public buildings, aqueducts, roads, and bridges and city planning and adornment were developed on a grander scale than the world had known up to that time. In the Hellenistic-Republican period the engineering and architectural forms of Greece were brought to Rome, and Rome became the architectural center of the world during the Early Imperial period. The most influential statement on architecture, attempting to organize and systematize engineering knowledge, was that of Vitruvius Pollio (see pages 128 to 129). The best of the Greek and Hellenistic artists found their way to Rome and contributed to the great succession of imposing buildings that marked the Early Imperial period, the Colosseum, the Forum, the many temples and triumphal arches, and the public baths with their vast corridors and colonnades, vaulted roofs, and immense cupolas, all distinguished by bright color and imaginative design.

In the Later Imperial period a decline may be noted in Roman architecture, little originality being displayed except in the building of Christian churches. In the West these took the form of the Roman basilica, unadorned and barren on the exterior, apparently in the effort to achieve artistic forms appropriate to the ideals of early Christianity. In the East, however, the brilliant achievement of the domed structure of Saint Sophia at Constantinople in Justinian's time paved the way for the endless variety of ornamentation that marked Byzantine architecture. In

the West the technical skills of the stonemason had apparently deteriorated to the extent that the achievements of the Augustan Era were no longer possible.

Arts and crafts. In general, the development of sculpture, painting, and the crafts followed along with that of architecture. Borrowing from the Greek models Roman sculpture became highly realistic in style and was characterized by massiveness and grandeur. Painting was used to ornament the buildings and statues and to color the reliefs on the temples, triumphal arches, and baths. Creativeness and originality seem to have lasted longer in painting, portraiture, and sculpture than in architecture or in the intellectual fields, but by the Later Empire sculpture and painting were losing detail and individuality and were substituting size, weight, and garish color.

The applied arts came to be enjoyed chiefly by the emperor's court and by the aristocratic and wealthy families, who, in the Later Empire, began to admire the coarser and more highly ornamental Eastern styles in dress, jewelry, and furniture, styles that made their effect through size, a riot of color, and sharply defined outlines. The arts of sculpture and painting remained "nonliberal" arts largely because of their close connection with craftsmanship and artisanship.

Social sciences. In the Hellenistic-Republican period of the third and second centuries B.C., the greatest historian was the Greek Polybius, who wrote a brilliant scientific history of Rome quite in the spirit and tradition of Thucydides, using all the available material, exercising critical judgment, and carefully comparing his sources. None of the Roman historians approached the quality of his historical writings. In the hands of Sallust history came to be a tool of party politics and political warfare, lacking in impartiality and scientific method. In the hands of Caesar it became a record of personal military exploits. Livy likewise lacked a critical or scientific approach to sources, but he has long been studied for the literary excellence of his writing. Tacitus also was notable in the first century A.D. for his trenchant and brilliant style. The first great biographer was Plutarch, who compared the great Greeks with the great Romans in his *Lives*.

Besides the geographical material contained in the historians, considerable advance was made in the work of several Hellenistic geographers who devised some good maps and compiled great masses of material on geography in the library at Alexandria. Outstanding above all others were Strabo and Posidonius. The former collected materials pertaining to physical and political as well as to historical geography. Ptolemy in the second century A.D. compiled much of this material, and his compilations came to be used as a standard reference until the new geographic discoveries of the fourteenth and fifteenth centuries.

Law. Among the contributions to western Europe made by Rome the influence of Roman law stands very high. The judicial system, the codifying of the civil law, and the imperial system of governmental administration proved to be working models for other times and places. The conception of one unified state ruling the world captured men's minds for centuries and found a counterpart in the ideals of the Christian Church and the Holy Roman Empire of later periods. As far back as the fifth century B.C. the common law was codified into the so-called "Twelve Tables." The notion that law should be based upon reason rather than simply upon precedent began to be accepted during the Republican period, and much attention was given to creating new legal arrangements to keep pace with the expansion of Rome.

During the Early Imperial period the law made great advances in the hands of famous jurists as well as of the emperors, who were often in direct conflict with the Senate in a struggle for power. The legal theory that the Empire was a vast federation of self-governing towns and provinces overlaid by the central government at Rome gave a large share of self-government to the cities and municipalities. This was most important in the Middle Ages, when the Italian cities began to assert their rights of independence against the feudal nobility and invoked the Roman law for justification (see pages 189 to 191). Although the theory stated that the self-governing communities should direct their own affairs, with merely a superstructure of central government to defend the frontiers and police the seas, it was apparent that the emperor through his control of finances, taxes, jurists, and secret police was in a position to interfere more and more with local governments.

The codifying of the law in the Later Imperial period became an important concern to many jurists and to some of the emperors. In their hands the Roman law received its formulation as the law of the whole civilized world. Among the emperors Vespasian, Theodosius, and Justinian were outstanding in seeing that legal practices, imperial edicts, and judicial decisions were compiled. The tradition of codifying the law was also kept alive by many of the Germanic rulers of Italy and western Europe, notably, Theodoric in Italy and Alaric II in Spain. Much of the Roman tradition of law was passed on to western Europe by means of these Germanic codes. Perhaps the most important codification was undertaken during Justinian's rule in the East in the sixth century, when the *Corpus Juris Civilis* was published in four parts. The "Code" comprised the currently accepted edicts and laws of the emperors that were still in force. The "Digest" was a compilation and digest of the jurists' opinions. The "Institutes" was a textbook for students of law. The "Novels" included the new laws issued after the publishing of the "Code" up to the time of the death of Justinian.

CHAPTER V

EDUCATION IN ANCIENT ROME

Organization and Control of Educational Institutions

Private control of schools in the Republic. Before 300 B.C. Roman education, like that of most other primitive and tribal societies, was directed by the family and guided by the aim to induct the children into the customs and life of the group in order to preserve its folkways. Ideals of piety, integrity, courage, and thrift and prudence were inculcated as the children imitated and watched their parents going about the ordinary business of living.

The general aim of family education was to help the boy become healthy and strong, to instill in him reverence for the gods, his parents, and the laws, and to help him become effective in war and in peacetime occupations.

The boy of a privileged family was taught to ride, box, swim, and use the spear. Girls were taught by their mothers the details of managing a home and were trained in the conduct becoming to a Roman woman who held a relatively high position in Roman homes and society. At the age of sixteen or eighteen the Roman youth put on the dress of a citizen and accompanied his father to the Forum, to the public religious ceremonies, and to other occasions. He thus learned the ideals and duties of a citizen, set forth not as theoretical abstractions but as matters of everyday practice and action. This type of education applied only to the upper-class families associated with the senatorial class. Children of the plebs, clients, and slaves received only enough instruction to enable them to fulfill whatever economic, religious, and military duties might be expected of them.

It is possible that formal schools may have existed in Rome as early as 500 B.C., but if so they did not play a very large part in comparison with the family type of education just described. In general, schools as formal institutions appeared in an important way on the Roman scene sometime following 300 B.C. and had become fairly common by the end of the third century B.C. Since this was the time when the Hellenistic schools of the East were becoming institutionalized, the institutionalizing of Roman schools was in large measure a general part of the broader Hellenization of the western Mediterranean world. The elementary

school in Rome came to be known as the *ludus* and was presided over by the *ludi magister*, or *litterator*, who was the Latin equivalent of the Greek grammarist in Hellenistic schools of the East.

Children from the ages of seven to ten or twelve, often girls as well as boys, were taught to read and write Latin and to count on their fingers, with pebbles, or with an abacus. In comparison with the Greek schools of the time, instruction in music and gymnastics seems to have been lacking in Roman schools; the first step in the intellectualizing of Roman education had taken place. These schools were private and voluntary, with little supervision by the state. The pedagogue who took the boys to school and acted as guardian was prominent in Roman education as well as in Greek countries. He sometimes even acted as tutor or teacher, for in an upper-class household he was often a Greek slave who was quite equal to such a role. Inasmuch as elementary education was a private affair, it is clear that Roman education was aristocratic and designed principally for the upper classes, who could afford to buy their children an education.

The secondary school was imported into Rome sometime in the third century B.C. As might be expected, it was thoroughly Greek in character, taking its pattern from the Greek secondary school of Hellenistic times. It was basically a grammar school and was taught, as in Greece, by a teacher known as a *grammaticus*. In the school of the *grammaticus* boys from the age of ten or twelve to sixteen were taught Greek grammar and literature, again with little or no attention to music or gymnastics, for Rome copied the increasingly intellectualistic pattern of education that in Hellenistic times was developing in the East. Interestingly enough, the first secondary schools in Rome were foreign-language schools, representing the interest of Republican Rome in all things Greek. This was likewise a part of the general Hellenizing of the West brought about by the Roman economic, military, and intellectual interest in Greece. The *grammaticus* was also a private teacher or tutor, supported by private fees or tuition, and for the most part during Republican times he was not controlled or supervised by the state.

Parallel with the growing awareness of Latin as the national language of Republican Rome in the first century B.C. a new type of secondary school appeared, this time a grammar school for teaching Latin. By the end of the Republican period the growth of a Latin literature had made it possible for the Latin grammar school to become popular and to exist alongside of the Greek grammar school. For many generations Rome had the two kinds of grammar schools, one Greek and one Latin, the favored boy perhaps attending both in order to achieve the best all-round education. These schools became the means by which the upper-class boy was prepared for a life of activity suitable to his class in Re-

publican Rome. They were the roads to attainment and preferment in the realm of public office whether in the Senate or in the army.

For the very best education during Republican times it was considered desirable to supplement secondary education with study at the rhetorical or philosophical schools at Athens or at other Hellenistic centers of the East. Rhetorical schools had not made great headway in the West prior to the time of the Empire. Thus, in all its foundation elements the education to be obtained in Roman schools was basically borrowed from Greek education. But the earlier type of family education continued to play a large part in Rome during the Republic, and, for most children, school education was no part of their lives whatsoever.

Growing civil control of schools in the Empire. During the Roman Empire the basic pattern of schools did not change radically from that of the Republic. The most outstanding changes were in matters of emphasis and support. Throughout the Empire the school of the *litterator* was the most common elementary school, designed principally to teach reading. The school of the *grammaticus* was the common secondary school, increasingly emphasizing the study of Latin grammar in the West and Greek grammar in the East. Eventually the Greek grammar school virtually disappeared in the West (although, interestingly enough, the study of Greek seems to have continued to some extent in the schools of Gaul and Ireland). The school of the rhetor, or rhetorical school, became the most popular higher school in the Imperial period, again emphasizing Latin rhetoric in the West and Greek rhetoric in the East. The ancient schools of Greek philosophy were maintained in the Eastern cities throughout most of the Imperial period, but they were never established in Rome or in the West to any like degree. Other higher institutions, maintained and established in the East and to a lesser degree in the West, included technical institutes, libraries, museums, and centers of research in the scientific, philosophical, and literary fields.

The most important change in Imperial schools was the increasing patronage and support given to teachers by several of the emperors and by the municipal authorities. In this way the civil government came to play a larger and larger role in the control of Roman schools so that in some sense it may be said that Rome established "public" schools on a wide scale. In general, however, such schools were designed principally for the senatorial or knightly classes, in other words, for the wealthy upper and middle classes of Roman society. Imperial patronage was more or less haphazard, depending upon the personal interest of individual emperors in promoting learning or upon their desire for popularity with and their effort to gain personal support from certain sections of the population. Even before Imperial days Julius Caesar had

given the franchise and rights of citizenship to certain foreign teachers and physicians who had come to Rome. Augustus also gave such favors when he allowed foreign teachers and physicians to remain in Rome when all other foreigners were being banished because of widespread famine.

In the first century A.D. the Emperor Vespasian is notable for his patronage and support of educational institutions. He established further library facilities in Rome and endowed chairs of rhetoric in Greek and Latin, paying the rhetoricians' salaries out of the public treasury. He also granted extensive exemptions from certain civic obligations to grammarians, rhetoricians, physicians, and philosophers, removing the burdens of taxes, service in the army, and the obligation to quarter soldiers. Nerva provided allowances for certain boys and girls to continue their education up to the ages of eighteen and fourteen, respectively, and Trajan provided for the care and education of several thousand poor children in Rome. How effective or how widespread were the results of these attempts to broaden the base of educational opportunity is not known, but the surface could only have been scratched under the best of conditions. Nevertheless, the eagerness for education seems to have been very widespread in this period, and thousands of schools in the East and the West taught children to read Greek or Latin.

In the second century A.D. even greater advances were made in extending schools at all levels throughout the Empire. Most of this extension was done by the towns and municipal authorities, especially in the East, with occasional help and stimulation by the emperors when financial depressions affected the towns. In the East, but not in the West, all towns had their palaestrae and gymnasiums. The games and athletic competitions kept up the interest in music, dancing, and athletics. Schools, however, were confined to the towns and restricted to children of the upper social classes. The Emperor Hadrian helped to rejuvenate Athens as a center of learning and established in Rome the Athenaeum as an institute for Greek and Latin scholars interested in science, literature, and philosophy along with engineering, architecture, and the more practical arts.

Antoninus Pius laid upon the towns the obligation of paying the salaries of teachers and of giving them exemptions; this had the effect of stimulating the already established custom of municipal control and support of education. Capital cities had to support up to 10 physicians, 5 rhetoricians, and 5 grammarians; small cities 5 physicians, 3 rhetoricians, and 3 grammarians; and others in proportion to their size. In general, the cities were to pay these salaries at public expense, and the emperor to pay the salaries from the imperial treasury if the cities could not do so. Marcus Aurelius was primarily interested in the

schools at Athens; he endowed a chair for a rhetorician and authorized the payment of salaries for 8 philosophers, 2 each for the philosophic schools originally founded by Plato, Aristotle, the Epicureans, and the Stoics.

In the third century A.D. Alexander Severus established a new center of higher learning in Rome, with public professors of grammar, engineering, architecture, medicine, and astronomy, and offered scholarships for the children of the poor. Constantine encouraged education by Christian teachers, especially in Constantinople, and reaffirmed the principle of immunities and honors for higher teachers. Gratian extended imperial patronage in the schools of Gaul. Under Julian the effort was made to cancel the privileges for Christian teachers, and his edict of 362 A.D. prohibited Christian teachers from offering instruction in the publicly supported schools, bringing all appointments under the emperor's thumb for confirmation or rejection.

Theodosius further sponsored public payment of salaries for teachers in the higher schools of Constantinople, authorizing 10 grammarians and 3 rhetoricians to teach in Latin and 10 grammarians and 5 rhetoricians to teach in Greek and appointing as well a philosopher and a jurist. An interesting development was his ruling that public teachers could not have private pupils and that private teachers could not teach publicly. The rule of Justinian marked a decline in the practice of imperial patronage of Roman education; he ordered the schools of Athens to be closed because they were pagan. There is evidence, however, that Roman imperial schools continued to exist in the East and also in Italy well into the Middle Ages. Some of the Italian towns managed to maintain their secular schools for centuries despite the difficulties of the times and the growing importance of religious schools conducted by the Christian Church.

Religious control of Christian schools. The Imperial period of Rome was marked by the entry of the Christian Church into the educational field alongside of the secular schools controlled privately or by the civil governments. In point of numbers of schools and pupils, the Christian schools probably did not equal the secular schools during the greater part of the Imperial period, though in the absence of statistics such a generalization is perhaps open to question. However, it seems likely that at some time between the fifth and seventh or eighth centuries the preponderance of educational effort was definitely the church's.

Whatever the merits of a generalization concerning the relative proportion of secular versus religious control of schools, the church made beginning efforts to set up its own schools in the first three centuries of the Empire. At first the church hesitated to establish schools, but it soon became clear to an increasing number of church leaders that some

kind of special instruction should be given to those who were about to become members of the church. In the early days of Christianity baptism and joining the church were adult affairs. In order to be sure that the candidate for baptism (catechumen) was well grounded in the faith, it was necessary to give him 2 or 3 years of probationary instruction. At first this was usually done informally by the elders of the Christian community; but as this instruction became more formal, the term "catechumenal school" was applied to the process by which the candidate for baptism was made familiar with the services, moral precepts, and doctrines of the faith. These schools probably reached their height in the fifth century A.D. and then gradually declined until they had all but disappeared by the eighth or ninth centuries and other types of church schools (presently to be described) took their place.

Another and much more important type of school established by the church was the catechetical school. A more extensive training was needed by those who were to become priests, and the catechetical schools were designed to supply this need. By further study of the catechism and by inquiry into the foundations of Christian belief, the prospective priest was prepared to defend and propagate the faith. In general, these schools came to include in the curriculum the whole round of studies deemed proper for an educated man of the second and third centuries A.D. Some of the church fathers who conducted such schools were Clement, Origen, and Pantaenus at Alexandria, Justin Martyr and Tatian at Rome, St. Chrysostom at Antioch, and others elsewhere in Palestine and Syria. These schools were eventually found in all the principal intellectual centers of the Empire.

The catechetical schools were not always highly institutionalized in form but most commonly were conducted by a bishop, who accepted promising candidates for instruction in his cathedral. They may have been the forerunners of the cathedral schools, which were so important and influential in the Middle Ages. That the church became interested in expanding its educational efforts as early as the fourth century A.D. is attested by the decree of the General Church Council in Constantinople, which in 381 A.D. required the establishment of schools in all towns and villages for the free instruction of children. This doubtless was a response to a demand that the church try to replace the secular control of emperor and town in the establishment of schools. In the sixth century a church council decreed that priests throughout Christendom should follow the example of the priests in Italy and give attention to the training of their successors. In these ways the idea of education for prospective members of the priesthood became a growing concern of the church before the end of the Roman Empire.

One other aspect of church organization and development had a profound effect upon the organization and control of education. That was the growth of monasticism. As early as the second and third centuries A.D. the practice of retiring from the world in order to follow the religious life attracted an increasing number of Christians. In the earliest days this practice was represented by the solitary hermit who dedicated himself to a strictly ascetic and rigorous life of denial of all things of the body and of glorification of the spirit. Self-abnegation, self-discipline, and even extreme physical mortification became the ideals of the hermit's ascetic life.

In the fourth and fifth centuries a change took place in the form of ascetic practices when individual hermits began to live near one another and eventually to live together and develop a communal life. In this process the original forms of religious monasticism were created. St. Anthony and St. Pachomius in the East, St. Basil in Greece, St. Athanasius in Italy, and St. Ambrose, St. Jerome, and St. Augustine in the West all made their contributions to this development, paving the way for the Benedictine movement, which began in the sixth century and eventually spread throughout most of Europe. Although the place of formal education in these early monastic groups is uncertain, it is clear that rules were developed for the conduct of the members, as well as definite expectations concerning mental and moral discipline. Eventually, the monasteries became important centers of the educational and intellectual life of the Early Middle Ages.

Status of the teaching profession. Much has already been implied concerning the role and status of teachers in the Roman period, but a few generalizations are in order here. The teacher of the elementary school, as always, was held in fairly low repute and paid haphazardly through fees or gifts. Little can be said with assurance concerning his position, but it is probably significant that so little comment upon him appears in the records of the Roman period. This is presumably a rough measure of the estimation put upon his services. As often as not, the elementary school teacher in Rome was a slave or a captured national of some country conquered by Rome.

The story is much different, however, with respect to teachers in the higher schools. In Republican days the most notable teachers were Greeks who came to Rome first as political equals, later as slaves, and then as enfranchised Roman citizens. In any case the Greek scholars were often lionized in the intellectual circles of Rome, receiving patronage and special privileges of different kinds. The status of grammarians, rhetoricians, physicians, philosophers, and scientists rose and fell at different times in Imperial days, but in general the fact that some of the emperors and many of the towns were willing to pay their

salaries means that they had a rather high position in the life of the period. Quintilian, a foremost rhetorician and teacher, held high public office under Vespasian in the early days of the Empire, and other examples could be noted.

When Christians were a minority and therefore a "dangerous" group, Christian teachers suffered the same fate as other Christian believers. When Christianity became the dominant religion, the pagan teachers in turn were often in trouble, notably when they were obliged to leave Athens under Justinian's edict closing the philosophical schools. Within the church itself many of the notable fathers were at the same time teachers, philosophers, and scholars. During the Imperial period the teaching process was a part of the function of the priest, bishop, and church leaders; in general, a special teaching class within the church did not emerge until the Middle Ages. The mark of a teacher was not a degree or the passing of examinations after a formal course of study so much as it was the fact that a person had studied under some recognized teacher and was then able to establish his own claim to be a teacher, to attract students, or to be appointed to a teaching position by the emperor, by municipal authorities, or by a bishop.

Although familiarity with the liberal arts came to be more and more accepted as the minimum requirements for one who would be known as a teacher, it was left to the Middle Ages to outline specific courses of study to be required as the avenue to a teaching license and a teaching degree. Until that time teachers had little cohesiveness as a professional group except as they belonged to a rhetorical or philosophical school, and admission to the profession was much less formal and more individualized than in the centuries to come. In the later days of the Empire the secular teachers, reflecting the general intellectual life, became less creative and more sterile in their approach to the educational problem, and the religious teachers were hemmed in by the restrictions of religious doctrine as well as by the desiccation of the intellectual life. It is likely that many of the teachers of the Later Imperial period knew little more than was contained in the digested textbooks that were written in the fourth and fifth centuries.

Aristocratic character of Roman education. Just as Roman civilization itself was largely exclusive in character, so was Roman education confined in large measure to the privileged and wealthy classes. In the days of the Republic, when the basis of economic and political life was rather broad, education in schools was a common expectation for relatively large numbers of people; but as the economic and political life became more restricted in the later days of the Empire, education became virtually limited to the aristocratic senatorial and knightly classes. Even though some remarkable advances were made in respect to the

public support of teachers and a few gestures were made toward scholarships for the poor, there was little chance that the children of the lower classes could take advantage of such schooling. In general, the opportunity to rise from the lower classes was a fairly small one and became smaller and smaller as serfdom and despotism increased after the third century A.D.

When the church began to take over control of much of Roman education, it did little to change the essentially aristocratic character of education; for its purpose was primarily to train leaders for the church, and these leaders increasingly came from the more privileged classes. The church did not develop a conception of education for all—a religion and a church for all, but not an education for all. The reservoir of religious doctrine was conceived to be, not the people at large, but the priesthood; hence education and intellectual opportunities were by and large reserved for priests and prospective priests.

Nonschool agencies of education. The most pervasive educational agency outside of the school in Roman times was, as in most cultures, the family. Much has already been said concerning the role of the family in educating children for their place in society. Only two more points need be mentioned. (1) The ability of a family to provide an adequate introduction of the child to the culture was determined in large measure by the social and economic status of the family. Therefore, the increasingly exclusive character of Roman society meant that fewer and fewer families could do much in this direction, and consequently the family as an educational agency could do little to check the deterioration of Roman life. (2) The early Roman family directed youth toward the whole life he was to live in the Roman Republic in all its religious, political, economic, and social aspects. However, as the church became all-inclusive, the obligations upon any Christian family that tried to live up to the expectations of Christianity led the family to concentrate more and more upon the religious, moral, and spiritual aspects of family instruction and to shy away from the political and economic aspects. Thus, family education, along with other types of education, became otherworldly in its influence and less concerned with the introduction of the child to the matters of everyday living in this world.

Other nonschool agencies of education have also been touched upon. In Republican days the educational effects of the activities of the Forum, the Senate, the popular Assembly, and the civic religious observances were enormous. Under the Empire the Roman citizen lived in the presence of great architectural, sculptural, and artistic monuments that served as a constant reminder of the greatness of Rome and of the emperor. Likewise, the games, circuses, theaters, public baths, fes-

tivals, and holidays had a largely public character, influencing the public mind, and for the intellectual classes the libraries, museums, and institutes provided a further means of education in addition to the schools. Above all, the Christian Church in its whole early development took on an educational aspect as it went about the process of spreading the gospel and converting a whole civilization to its beliefs. In order to win a position of supremacy the church engaged in an all-inclusive teaching and educative process.

Two other agencies remain to be mentioned. (1) The army was extremely important as a means to success and achievement in Roman public life. Under Augustus particularly, the education of the youth of the privileged classes was directed toward leadership in the army, emphasizing physical education as well as military training. The youths practiced their horsemanship in the reviews and games held on the Campus Martius in Rome and on similar fields in the provincial cities. Whereas in the East physical education had remained a function of the palaestra and public gymnasium, in Rome physical education became either an adjunct of military training or was directed at participation by the professional athlete in the games and circuses.

(2) The system of apprenticeship accomplished the vocational education of the lower classes of tradesmen and craftsmen. As in Greece, vocational education in Rome was not a part of the schools but was left to a period of apprenticeship in which the boy worked with a practicing craftsman. As these tradesmen and workers formed into guilds, or associations, certain requirements for entrance to the guild were set up to ensure the adequate preparation for the aspiring young person. For the rest, the plebs on the farms and in the cities learned what they could of semiskilled and unskilled labor from their families or landlords or employers.

Educational Aims, Curriculum, and Methods

Secular elementary schools. When Rome began to import Greek educational ideas during the Republican era, it was the Greek literary school of the grammarist that was copied, not the school of music or of gymnastics. Roman elementary schools made paramount the aim of literacy and paid little or no attention to the Greek ideal of a well-rounded individual, versed in music and physically well developed. Roman elementary schooling simply stressed the ability to read and to write and to count. Just why the accent should have been put upon the three R's to the exclusion of music and gymnastics is not clear, but some reasons may be advanced. The fact that the Latin language was just taking literary form during the Early Republican period made it only natural that the new language should be stressed in the elementary

schools. This trend was given further emphasis by the fact that Livius Andronicus had translated the *Odyssey* into Latin in 275 B.C., providing a ready-made textbook for learning to read Latin. Another factor may be that when Rome began to be interested in Greek education in the third and second centuries B.C. the Hellenistic schools of Greece and of the East had already begun to drop their attention to music and gymnastics and to glorify the intellectual ideals even at the earliest levels of education. It has further been claimed that the early Roman people were cold to the values of music and physical development in much the same way as the American pioneers found little time for such accomplishments when a wilderness continent was to be won by so much hard physical work that interest in more than the rudiments of literacy was lacking.

In any case the lot of the elementary pupil in Rome was apparently a hard one. Most of the literary and pictorial references to elementary schools attest to strenuous discipline and corporal punishment that were considered to be integral parts of the learning process. Learning to read was a matter of memorizing the letters of the alphabet, their relations in syllables, and the meanings of individual words and studying sentence structure. Writing was a matter of copying down the dictated statements of the teacher into copybooks or on wax tablets. The materials used were, at first, such books as the *Odyssey* and Vergil's *Aeneid*, but in the Imperial period grammar textbooks such as that of Donatus began to replace actual literary works. Pupils then simply copied down definitions and grammar rules and memorized them. Likewise, they copied reading materials taken from such readers as Cato's *Distichs*, learning the prudential maxims concerning morality, caution, self-control, courage, moderation, and shrewd adaptation to the fortunes of life. Counting, whether on fingers, on the abacus, or with bags of stones or pebbles, was an important part of the three R's; arithmetic was probably emphasized because of the necessity of keeping business and household accounts in the growing complexities of a commercial and mercantile society. Memorizing, drill, and discipline seem to have been the major features of the Roman educational method.

Secular secondary schools. The Latin grammar school held a large place in the education of the well-to-do Roman youth and has left its mark upon generations of European and American youth down to the present day. Like elementary education, and for much the same reasons, Roman secondary education was more narrowly conceived than that of the Greeks, lacking the Greek interest in gymnastics. It is interesting, too, that the first secondary schools in Rome were foreign-language schools; the native Latin had a long struggle before it could pretend to be as valuable an educational experience for Latin youth as was

claimed for the Greek grammar school. From Roman times to the present nearly every European country has gone through the same experience, and the parallel in America is striking. The first secondary school among English-speaking peoples in the American colonies was a foreign-language school in the form of the Latin grammar school. It took between two and three centuries before English could maintain itself as the proper language for secondary education among English-speaking people. The belief that someone else's language is better than one's own for educative purposes has had a long tradition. Only the Greeks did not believe it; they felt at home with their own language.

In its best days the school of the *grammaticus* in Rome was a liberating and effective instrument of education, conceiving of grammar so broadly that it included the great literature of Greece and Rome. Under farseeing teachers the study of Homer, Greek tragedy, Vergil, Horace, and the other Latin poets could conceivably make a part of the student's experience much of what we today should call history, ethics, and the social studies as well as poetry, grammar, composition, and literary criticism. More often, however, it became a routine study of words, phonetics, conjugations and declensions, paraphrasing, memorizing, repetition, dictation of sentences, and explanation of allusions. The best grammar schools in the Early Empire began to include in their curriculum the whole round of liberal arts as defined by Cicero and Quintilian, but in the declining days of the Later Empire the grammar schools also declined considerably. They repeated the dictates of the professional grammarians, emphasized quotations and selections from the great authors instead of the literary works themselves, and handed down such allegorical and intellectualized pabulum as Capella's digest of the liberal arts.

Secular higher schools. The most outstanding of the higher schools in Rome were the rhetorical schools established for the wellborn Roman youth who was destined for a career of politics and public service. Interestingly enough, the rhetorical schools were not very common until after the Republic had died and the real professional outlet for the schools had largely vanished. They were patterned in their best days on the ideals of Cicero as promulgated by Quintilian in the first century A.D. In the conception of such leaders the rhetorical school was the culmination of training for the all-round development of the public orator who was destined to take his place in the legal and political life of the state. But by the time the rhetorical schools were well established the opportunity for guiding the destinies of the state through public oratory and statesmanship had practically disappeared with the passing of the Republic. The rhetorical school's usefulness had virtually been outlived before it began to function.

In the hands of a Quintilian the rhetorical school was much more than simply the study and practice of rhetoric. Its course of study was designed to include all the major fields of knowledge as a means of developing a person of broad understanding and good practical judgment. Under the rhetoricians of the Later Empire the study of rhetoric became an end in itself, living in the dead past and out of touch with the contemporary currents of life. The study of oratory, when there was no longer an outlet for it in practical life, turned its attention from subject matter to correct and elegant expression.

Other institutions of advanced education maintained a more or less effective intellectual life throughout the Empire. In Rome the Athenaeum as well as other institutes and libraries became centers for research and study in medicine, architecture, engineering, law, rhetoric, and literature. In the East the Athenian schools of philosophy and rhetoric maintained themselves over the centuries, and the museums, libraries, and schools at Alexandria, Pergamum, Antioch, Rhodes, and elsewhere provided centers where scholars and students could gather together and explore a wide range of fields, including law, medicine, architecture, engineering, mathematics, language, literature, philosophy, and ultimately religion. In these institutions, however, the creative character of education diminished in ways that have already been described.

Christian schools. The basic outlines of the catechumenal and catechetical schools set up by the Christian Church in the Imperial period have already been suggested. The great question facing Christian educators was what attitude to take concerning secular schools and their "pagan" learning. The answer to this question varied from time to time and from place to place. Some Christian leaders stood out strongly against secular schools and secular learning, urging Christian parents to have nothing to do with such sources of evil and paganism. Others preached moderation and told parents that children could be sent to secular schools if care were taken that they were not corrupted by the religious mythology and pagan morality contained in secular literature. Still others were not at all fearful of secular learning but included in their catechetical schools the whole round of liberal arts and philosophy as preparatory to the highest study of Christian doctrine and theology.

In general the church accepted and assimilated most of the non-controversial elements of the secular liberal arts stripped of their pagan influences. After all, grammar, rhetoric, and logic could be taught in such a way as not to corrupt the morals of youth but even to contribute to the intellectual discipline necessary for the Christian scholar. The study of the mathematical elements of arithmetic, geometry, astronomy, and music would not be morally harmful if employed as purely

intellectual exercises or as instruments for the delineation of human reason as subservient to faith. In like manner the idealistic philosophy of Plato was absorbed by church doctrine.

Two large areas of human knowledge, however, were considered to be not germane or even harmful to the dominantly religious concern of Christian schools. One was the field of the practical sciences of architecture, engineering, mechanics, medicine, and law. These subjects dealt with the means of controlling the physical or human environment for the betterment of life on this earth; therefore, they were, in religious terms, of much less significance than the liberal arts. They consequently declined from neglect at the hands of the church during the Empire, despite the occasional books on these subjects found in church libraries and schools. The other field was that of the natural sciences and materialistic philosophies, which were deemed definitely harmful to the spiritual and idealistic philosophy accepted by the church. Thus the science of Aristotle and of the Alexandrians was not assimilated into Christian learning at this time and was therefore not passed on to western Europe through the church and its schools. Rather, it was driven into exile in Syria and Egypt, where it was later assimilated by the Arabs and finally introduced into Europe through the Arab and Hebrew scholars of the twelfth and thirteenth centuries. The point is that the church schools selected, reconciled, and assimilated much of secular learning but also rejected much, which was therefore virtually sentenced to oblivion for centuries.

Theories of education. Aside from Cato the Elder, who attacked all things Greek, and Varro, who honored all things Greek, it was Cicero who had the greatest influence upon Roman educational theory during Hellenistic-Republican times. In his book entitled *De Oratore* Cicero outlines his conception of the art of rhetoric and oratory and indicates the kind of education that he felt appropriate for the development of the orator or public leader. He insists that the orator must have a broad general education as a background for the attainment of true success in his professional and public life. Only in this way can the orator become a wise and judicious leader; anything short of a broad liberal education in the studies appropriate to man would leave the orator narrow, mean, and warped in his judgments. The conception of the "humanities," the studies proper to humanity, is the outstanding idea in Cicero's theory of education.

Although his enumeration of the humanities is not too specific, it seems clear that Cicero would include grammar (which was primarily literature), rhetoric, logic, geometry, astronomy, music, physics, history, civil law, and philosophy as the important branches of knowledge necessary for the well-educated orator. It should be noted that these

are studies broader in scope than the seven liberal arts, which later came to be recognized as constituting the whole of a liberal education. Even more important, Cicero constantly stresses that the aim of such study is not simply intellectual or spiritual exercise but usefulness in public and private life. All the humanities are to be focused upon the art of leadership in public affairs.

Another example of the Roman ideal of maintaining a vital connection between theory and practice is afforded by a contemporary of Cicero in quite a different field. In his works on architecture Vitruvius Pollio maintains that theory and knowledge must go hand in hand with practice and craftsmanship. For example, not only must an architect be a good craftsman, know how to use his tools, and be proficient in their practice, but he must also have a broad and deep acquaintance with the basic fields of knowledge, mathematics, science (especially physics), literature, and philosophy, and be familiar with art, music, law, and medicine. Only in this way can an architect or engineer become a true leader in his field. If the educators of following centuries had paid more attention to the proposals of Vitruvius and if the movement of society and culture had not been so much in the other direction, it is possible that there would not have been so wide a gap between knowledge and action, between theory and practice. It was many centuries before the gap was somewhat closed, and in many aspects of modern education today theory and practice still remain very far apart.

In Early Imperial times the most important and influential treatise on education was written by Quintilian. In the preface to his *Institutes of Oratory* Quintilian gives a general picture of the character of the orator as the well-rounded man of affairs or statesman rather than merely an accomplished speaker. Mention has already been made of Quintilian's conception of the orator's role as a citizen whose leadership in the formulation of public policy should be based upon a broad intellectual background, knowledge, and sound character (see pages 126 to 127). In Book I of the *Institutes* Quintilian describes the kind of education that should be given to children prior to the study of rhetoric itself; in this respect his treatise puts considerable emphasis for the first time upon educational method and procedures. Quintilian stresses the fact that boys differ in their individual capacities and that teachers should take account of these individual differences. Recognizing that the vast majority of boys are capable of improvement, Quintilian emphasizes not only individual differences but also the desirability of allowing a choice of studies in order to give the greatest opportunity for the development of special talent. The good teacher will ascertain the disposition and abilities of his pupils so as to adapt his methods to

each individual. Play, games, and amusements should be used for relaxation and increased efficiency as well as to stimulate interest through competition and rewards rather than through corporal punishment. Instruction in reading and writing can be given to very young children. Despite his emphasis on amusements and rewards Quintilian also stresses memorizing and the use of moral admonition. Nurses, parents, and teachers of small children should be very careful of the language they use and the morals they display because of the great influence that the patterns of early childhood have on later years. In learning to read, the child should start with Greek first, on the theory that he will learn his native Latin anyway; since Greek came before and acted as a foundation for Latin, it is only natural to learn Greek first. Quintilian set a pattern in this respect that generations of educators in the Renaissance and in following centuries used to support their arguments for study of a foreign language as the best way to learn one's own language.

Quintilian apparently had a well-developed conception of the social aspects of education, for he insists that public education in the school is much to be preferred to private education with a tutor. He stresses the values of the group education that comes when boys learn together in classes; the emulation, friendships, and incitements to success thus experienced are superior to the advantages of private teaching at home. He refutes the arguments that the schools hurt the morals of boys and that a teacher is likely to give unfair attention to certain individuals. Quintilian points out that morals are corrupted at home too and that if classes are not too large the teacher in school can give adequate attention to all pupils. In general, his arguments point to the modern idea that school is a society in which children learn from each other as well as from the teacher.

In the final 11 books of the *Institutes* Quintilian gives detailed descriptions of the advanced education suitable to the training of the orator. Beyond the elementary instruction just described, the boys should have a grammar school training, which should lay great emphasis upon grammar and composition and extensive reading of all kinds of authors, including the tragic, comic, and lyric poets. In Book X, Quintilian sets forth perhaps the first list of "great books" that should be included in a liberal education. In addition to the study of grammar and composition, word usages, and the art of style, and memory training, Quintilian mentions music to help train the voice, mathematics for the methods of proof, training in elocution, and a certain amount of physical education to promote the graceful use of the body and effective use of gestures. For the most advanced training of the orator he prescribes a thorough study of composition and declamation, reading of

the prose authors, and the formal theory and practice of rhetoric, including the various types of oratory, style, delivery, figures of speech, allusions, and analogies. Reading in law, jurisprudence, and philosophy is also desirable; but since Quintilian was distrustful of the philosophers, he does not stress philosophy very much. Quintilian's views on education are important not only for what they reveal concerning the highest ideal of Roman education but also because the *Institutes* was rediscovered during the Renaissance, when it became virtually the educational bible for generations of Humanist educators.

No other writer in the Imperial period approached Quintilian in the scope or detail of his proposals on education. The trend after his times was away from the close relation between education and society that Quintilian had proposed. An occasional voice arose in protest against educational isolationism, notably that of Seneca, whose famous statement, "We learn our lessons, not for life, but for the schools," is well known. Similarly, Tacitus wrote with approval and nostalgia of the education that Cicero had gained by studying a wide range of liberal arts, mathematics, philosophy, and science, completed by practical apprenticeship to a jurist. Likewise, Galen, the last of the great Greek scientists, urged that the writings of the classic authors should be constantly tested and verified by observations of nature. But most writers in the first and second centuries A.D. were beginning to glorify, as did Plutarch, the training of the memory, strict mental discipline, and inculcation of good moral habits through precept and practice. The way was being paved for the medieval Christian outlook in educational theory.

Although many of the Eastern church fathers, such as St. Paul, Clement of Alexandria, St. Origen, St. Gregory of Nazianzen, and St. Basil had approved the study of secular authors and philosophers for Christian youth, the trend in the third and fourth centuries was in the other direction. The Western fathers, as mentioned earlier, had always been less favorably inclined toward Greek learning and philosophy. Tertullian was one of the most outspoken in his condemnation of the Greek philosophers; his attitude doubtless stemmed from his conception that human nature is essentially sinful and human reason as expressed in Greek philosophy not to be trusted. St. Augustine and St. Jerome also renounced in their later years their earlier enthusiasm for secular learning, and Gregory the Great despised Greek grammar and rhetoric. In general, the effect of the Western Christian fathers upon educational theory was to deny the values of the material and practical affairs of life and to discount the values of the Greek intellectual life. This left only the values of a strictly moral and disciplined mental life as contributory to spiritual salvation.

Something of an exception to this generalization is to be found in the educational writings of St. Chrysostom in the fourth century A.D. He urged parents and teachers to use the stars, the flowers, and the fields as objects of instruction, but he tempered this with the injunction that although the senses are the gates of the soul they must be carefully guarded by constant moral precepts and memorizing of religious poetry. Clement of Alexandria went much further in advocating physical exercise for the attainment of health and music for relaxation, but Clement and St. Chrysostom were both Greeks and thus reflected the secular Greek ideal of well-rounded personality even though they were good Christians. By and large, the educational theories of the Western church fathers showed no such breadth of view.

St. Ambrose, St. Augustine, and St. Jerome were much more influential than the Eastern fathers in setting the pattern and tone for Christian education in western Europe for centuries to come. In their view the ascetic ideal became most important as a means of subjugating the desires of the body and elevating the soul. The whole life of sense experience came to be considered evil; thus physical education or gymnastics were worse than useless; for the more they helped to develop the body, the more they interfered with progress toward salvation. Secular music was likewise viewed as harmful as a relaxing, recreational, or creative agent because it diverted the emotions from religious affairs. Church music as represented by the Ambrosian chant was desirable, however, because it directed the emotions into the proper religious channels.

Secular learning was to be shunned in that it elevated human reason improperly above religious faith. The child's nature was evil and not to be trusted but must be subjected to constant supervision and, if necessary, to severe discipline in order to achieve the proper measure of obedience and submissiveness. Particularly with reference to the education of girls, retirement, seclusion, and careful supervision were universally favored, the discipline of the nunnery admired, and the life of perpetual virginity glorified. Thus, when the Christian fathers rejected gymnastics, music, rhetoric, and secular philosophy and when they denied the value of education as preparation for an active life in practical affairs, they so confined the Greco-Roman educational ideal that it became narrowed to the religious studies and liberal arts deemed suitable and appropriate by Christian doctrine.

CHAPTER VI

THE MIDDLE AGES

(Sixth to Thirteenth Centuries)

In historical terminology the term "Middle Ages" has had such unfortunate connotations that many people think of the period of the sixth to the thirteenth centuries as simply something "between" the Roman period and the Renaissance period. For long, it was virtually neglected as a subject for historical study because it was considered as a time of complete confusion, barbarism, and intellectual decay. This attitude was originally fostered by the scholars of the Renaissance, who looked with longing to the ancient times of Greece and Rome as eras of greatness and glory that were being recaptured once again after seven or eight centuries of darkness and decline. Hence, the term "Dark Ages" was long applied to the medieval period, as if the people of that time lived their lives in an atmosphere of perpetual gloom and despair.

More recently, however, historians have realized that the time of the so-called Middle Ages was not an unfortunate interlude in human civilization but rather a period of genuine creativeness despite the political and economic confusions. In other words, the medieval period represented an essential continuity of culture, linked with ancient times and preparing the groundwork for many of the institutions and ideas that we call "modern." It may be that change was slower in some aspects of life than it had been in ancient times and much slower than it was to be in more recent times; but, as in all cultural change, there were large elements of continuity along with new elements that produced distinctive institutional and intellectual forms. Thus, even though the terms "Middle Ages" or "medieval times" are still current because of their familiarity, it should be remembered that their use carries no reproach. The Middle Ages were no more "middle" in any genuine sense than is any other arbitrary designation of historical time. Any period may be looked upon as "transitional" for certain purposes; but, likewise, any period may be viewed as containing elements of both stability and change, certainty and uncertainty, security and insecurity. The Middle Ages reflected these cultural differences much as any other historical period does.

THE INSTITUTIONS MEN LIVED BY

The emphasis that many historians put upon the "decline and fall" of the Roman Empire leaves us feeling that somehow everything went to pieces in the fourth, fifth, and sixth centuries and that there was nothing but anarchy, confusion, and hopelessness for several centuries thereafter. The fact being allowed that the Middle Ages had its share of cultural dislocation, it is also true that political, economic, and religious institutions were gradually shaped in such a way that life not only continued but eventually began to prosper and flourish. In general, the most difficult days were encountered in the Early Middle Ages, designated in this book as roughly from the sixth to the eleventh centuries, whereas life took on an increasingly fertile and flourishing character in the Later Middle Ages, namely, from the eleventh to the thirteenth centuries. These divisions are fairly arbitrary, but they do represent in some sense the fact that order and stability were gaining headway in the Later Middle Ages over the confusions of the Early Middle Ages. At all times there was a very close interconnection among political, economic, and religious institutions, so close in fact that it is difficult to separate them even for purposes of discussion.

Political Institutions

Early Middle Ages (sixth to eleventh centuries). As recounted in Chap. IV, the seat of the Roman Empire had been shifted from Rome in the west to Constantinople in the east from the fourth century on. This meant that Greece and the eastern Mediterranean became more than ever distinctly separated from western Europe in political affairs. In the west, Italy was the scene of a series of political upsets marked by the Germanic tribal invasions of the Ostrogoths under a series of kings of whom Theodoric was outstanding in the sixth century. This period was also marked by the reconquest of parts of Italy by the Emperor Justinian from the east and by invasions of the Lombards and Franks from the north. In the seventh and eighth centuries, therefore, political authority in Italy was bandied about among the Ostrogoths, Lombards, the Eastern Empire, the Papacy, and the Frankish kings.

Meanwhile the center of political authority began to move from Italy northward to the Frankish kingdoms located roughly in what is modern France and Germany. The many small Frankish kingdoms were gradually consolidated under the leadership of the Merovingian kings, of whom Clovis was noteworthy. Soon afterward, political power shifted from the kings to the mayors of the palace. One of these mayors in the eighth century was Charles Martel, who was able to defeat the Arabs at the Battle of Tours in 732. Thereupon, he united, organized,

and cemented the Frankish kingdom and strengthened the Roman Church in Frankland with the aid of the great churchman St. Boniface. Charles Martel's son, Pepin the Short, became mayor of the palace in the eighth century, and, at the request of the Pope, who found that he was being belabored by the Greek "heretics" from the east and by the Lombard "robbers" from the north, Pepin went to his aid and drove out both. In return, the Pope made Pepin king of the Franks, and Pepin granted to the Pope a strip of land across central Italy, which later became the Papal States of Italy.

Later in the eighth century Charlemagne, son of Pepin, became king of the Franks and set out to extend the boundaries of his kingdom east to the Elbe River, north to the North Sea, and south to the Mediterranean. On Christmas Day in the year 800 Charlemagne was crowned Roman emperor by the Pope and in theory became the legitimate successor to the emperors of the ancient Roman Empire. As such, Charlemagne became the towering political figure of the Early Middle Ages and made great strides in reestablishing the authority of a strong central government over most of western Europe. He divided the Empire into several parts and placed his trusted lieutenants in charge of these. He also sent secular agents into the different divisions of the Empire to hear appeals and strengthen the central power. Periodically, these keymen met together to hear the royal pleasure and to receive edicts, or capitularies, which they were to put into effect. In general, under the rule of Charlemagne political authority was made more effective, economic and agricultural life was improved and revived, and religious and educational reforms were instituted, and it was a period of considerable intellectual achievement.

In the ninth century the successors of Charlemagne in state, church, and family began to quarrel among themselves for control of the Empire. As a result of a long series of civil wars, the Empire was gradually split up into three large parts in which the outlines of modern France, Germany, and Italy may be vaguely seen: the western Frankish kingdom ultimately became France, the eastern Frankish kingdom became Germany, and the rest became Italy. In Charlemagne's hands the Empire was held together, but in less capable hands its weaknesses became apparent. The central administration could not be maintained in the face of the growing strength of local aristocracies, the nobility, the churchmen, and the landowning rulers.

The Empire was further weakened by a series of invasions in the ninth and tenth centuries. The Northmen, or Vikings, swept in from the Scandinavian lands from the north, Danes into the British Isles, Normans into Normandy, Sicily, and Italy, and Swedes into Russia. The Slavs and Magyars attacked the Empire from the east and drifted

as far west as Italy and France, and the Arabs, or Saracens, came over the sea from the south and from northern Africa to harass Greece, Italy, Spain, and France. As a result, lawlessness, terror, and warfare became ever more common. Safety and political authority were to be found increasingly in the hands of a local strong man who had land, a well-fortified castle, and subordinates who would fight for him. Political authority thus became extremely decentralized, for these feudal lords were the only ones who could promise some protection against marauders, although the kings continued to exercise a nominal control.

Much of the political history of the eastern Frankish kingdom following the breakup of Charlemagne's empire in the ninth century was written in terms of the struggles between the kings and the nobility. The kings, who claimed power either by election or by hereditary right, constantly sought to make their powers more than nominal, whereas the nobility were eager to keep one ruler from becoming too strong. By 962 Otto I (the Great) was strong enough to conquer Italy and establish himself as head of the Holy Roman Empire, reviving the theory that he was the successor of Charlemagne and thus the legitimate heir of the Roman Empire. The name, Holy Roman Empire, shows that the church had become vastly important in the political affairs of western Europe and that the emperor was considered the guardian of the secular branch of a universal Christendom. By the end of the early Middle Ages the Holy Roman Empire was a power to be reckoned with in European political life.

Meanwhile, a similar process of conflict between the kings and the nobles was taking place in the western Frankish kingdom during the Early Middle Ages. Throughout most of the tenth century constant civil wars were interspersed with invasions by the Northmen, who finally gained the lands of modern Normandy. As a result, France was marked by a great number of duchies, counties, and smaller feudal estates over which the kings were not able to exert much power until the Later Middle Ages.

In England the process was similar in many respects. In the eighth century the Danish invasions wiped out three of the four Saxon kingdoms, leaving only Wessex under Alfred the Great, who came to the throne in 871. Alfred the Great organized a defense against the invaders, established a strong central government, built up a navy, and made a treaty with the Danes, allowing them to settle on lands north-east of the Thames. The Saxons and the Danes struggled intermittently until both were overcome in 1066 by the Normans under William the Conqueror, who set England further along the road to a unified monarchy.

Meanwhile a development had taken place in Arabia that eventually had great influence upon European life. In the early seventh century Mohammed appeared as the great political and religious leader of the Arab people. Building up a strong following and a strong army, he was able to conquer most of Arabia by the time of his death in 632. When he died, strong men known as caliphs arose to take his place and continue the policy of conquest. Because of the weakness of the Eastern Roman Empire and the strength and fanatic fighting quality of the Arab horsemen, the caliphs were able to conquer most of the Middle East and spread their empire beyond the borders of Arabia to the Turks in the north, to India in the east, and across northern Africa to Spain, Italy, Sardinia, Corsica, and Sicily in the west.

The greatest power of the Arab Empire was reached in the eighth century, with Bagdad as the capital and center of culture. In the ninth century the empire began to crumble as the provincial governors began to fight among themselves. The Persians began to dominate the affairs of the empire in the tenth century, and the Seljuk Turks conquered much of Asia Minor in the middle of the eleventh century and expanded their control in the twelfth and thirteenth centuries.

Mohammed's religion is known as Islam, and his followers of whatever nationality are known as Moslems. The term "Saracen" had earlier been given to the Arabs by the Greeks and Romans, but it was gradually expanded and eventually came to include all those who adopted the religious tenets of Islam, not only Arabs, but also Persians, Turks, and others who were affected by the religion and culture built up in the southern and eastern Mediterranean world from the eighth century onward.

Later Middle Ages (eleventh to thirteenth centuries). From the middle of the eleventh century to the end of the thirteenth century the process of centralizing political authority continued rapidly in France and England, but less headway was made in Germany and Italy because of the complicated struggles between the emperors and the nobility on the one hand and the emperors and the Papacy on the other. In the eleventh century one of the strongest of Holy Roman emperors, Henry IV, came into conflict with Pope Nicholas II and Pope Gregory VII. In the twelfth century Frederick I (Barbarossa) contended not only with the Pope but also with the independent cities of northern Italy, who formed the Lombard League and finally won the rights of self-government from him at the Peace of Constance in 1183. The struggle was carried on into the thirteenth century, particularly between Pope Innocent III and Emperor Frederick II. Innocent III was perhaps the greatest medieval pope, exerting more secular power than any other pope before or after his time. Innocent III joined with the Lombard

cities against Frederick II, after whose death the Empire was so weakened that the Papacy remained the greatest single political power in Europe in the thirteenth century. The struggle had kept Germany and Italy so divided within themselves that strong centralized governments could not be established. Until the nineteenth and twentieth centuries these countries were never unified as were France and England.

In contrast to the essentially decentralized state of affairs in Germany and Italy the monarchies in France and England became ever more centralized and powerful. Outstanding among the French kings who made such gains were Philip II (Augustus), who conquered many of the lands in France still claimed by the Norman kings of England; Louis IX (St. Louis), who gave France a long period of peace and improved the courts of law throughout the land; and Philip IV (the Fair), under whose rule the States-General began to take shape, giving the nobility and merchant classes more voice in the government.

The kings of England likewise made headway in unifying their country. Beginning with William the Conqueror the Norman rule established a highly centralized and effective central government. Henry I appointed strong ministers to rule for him and collect his taxes, and Henry II established royal courts and juries to settle land disputes among the nobles and to try criminals. In this way the king's courts began to replace the nobles' courts in administering justice; yet when King John was forced to sign the Magna Charta in 1215, the English nobility gave notice that they did not intend to be brought under the king's rule without a struggle. Under Henry III the great council was expanded to include representatives from the principal towns as well as members of the nobility. Although the great council was intended simply to approve the acts of the king, the constitutional forms were being established out of which grew the English Parliament. At the end of the thirteenth century under Edward I representatives of the middle classes were admitted, and shape was being given to the House of Commons.

Economic and Social Institutions

Feudalism. The foregoing section on medieval political institutions may give a one-sided conception of medieval political life unless it is understood that a complicated framework of personal and landowning relationships supported all political arrangements. This whole complex of relationships, which came to be known as feudalism, gained increasing strength with the breakup of Charlemagne's empire. The roots of feudalism went back to at least two ancient sources, which gave form to two types of personal relationships known as feudal tenure and servile tenure. Technically speaking, feudal tenure, the relationship between

two persons of noble birth, probably had its basis in the customs of the Germanic tribes in which a free man would bind himself to obey a leader or king; servile tenure, the relationship between a noble and an unfree peasant or serf, had its roots in the latter days of the Roman Empire, when agricultural workers were forced by the Roman emperors to remain on the land and work for the owner.

Feudal tenure worked something like this: If one noble went to another and said, "I will be your man if you will give me protection when I need it," the first noble became a vassal and the second became the suzerain, or overlord. The vassal then went through the ceremony of turning his land over to the overlord, who returned it to the vassal to be held in fief, or *feud*, as security that both would live up to their agreement. A fief, or feud, was anything that rendered income, such as land, a mill, or a toll bridge; it bound the overlord to give protection and the vassal to give service. These obligations gradually became hereditary and often remained fixed from one generation to another. Feudal aristocracy not only was made up of landowning persons but also came to include those who were able to fight on horseback. In addition to giving fighting service the vassal also often had to render economic services, which took the form of taxes, levies, and contributions to the overlord when his son was knighted or his daughter was married. In return for these services the vassal received land to support himself. The overlord gained authority not only over the vassal but also over his family and their marriages because the fief was being married as well as the persons. The lines of authority and responsibility often became very complicated and confused, especially when a noble was overlord to one group of nobles and in turn was vassal to another.

In theory, the king was the chief overlord, and all nobles owed allegiance to him; but as has been noted, the nobles did not often pay this respect unless they were forced to do so by strong methods. In France and England the kings were able to command this loyalty earlier than in Germany, where many strong nobles were able to prevent for a long time the emperor and kings from becoming too strong. The church was involved in these feudal relationships, for monasteries and churches owned much land and gradually acquired more until the church is said to have owned as much as one-third of the land of Europe in the Later Middle Ages. Monks and churchmen who were granted land in fief hired or gave a part of their land in fief to knights, who performed the fighting part of the churchmen's service when the latter were called upon by their overlord.

A person of lower class who owned no land and was not able to fight on horseback received servile tenure. In return for protection he worked in the fields or on the roads or fought as a foot soldier in the

wars. The serf, or villein, held his land in villeinage and usually had to remain attached to it. He was thus an unfree tenant, bound to the land assigned to him, the produce of which he had to divide with the lord. The serf also usually worked a share of his time on the lord's demesne land, all of the produce from which went to the lord. Once freedom was lost, by the hereditary nature of feudalism, the serf's descendants were born as serfs, bound to the soil.

Thus, rigid class distinctions grew up in Europe as a result of feudal arrangements. It became very difficult to rise out of the class one was born into. The church and the nobility made up the aristocratic upper classes, the first and second estates, and the lower classes were made up of all the rest of the people, most of whom were unfree serfs. In the Later Middle Ages the growth of commerce and the rise of towns made possible the appearance of a middle class with rights above those of the unfree serfs and below those of the aristocracy. The middle classes of merchants, traders, and craftsmen became the nucleus of the third estate.

On its positive side feudalism bequeathed to modern Europe an emphasis upon political contract and reciprocity of obligations. The king could command obedience only so long as he fulfilled the terms of the contract. This was the focal point of the struggles between the nobles and the kings. On the negative side, Europe was saddled with an entrenched and hereditary aristocratic class cut off from the common people by distinctions that marked all aspects of life including educational opportunity. In this respect America has had less class stratification than most of Europe, for it has had no entrenched feudal nobility.

Growth of commerce. In its earliest days medieval economic life was almost entirely agricultural and rural. The economic unit was basically the lord's manor, which was also for a long time the political, social, religious, and educational unit. The manor was largely a self-sufficient economic unit consisting of the noble's family, the serfs' families, and such artisans as weavers, bakers, millers, blacksmiths, tanners, boot-makers, and brewers. Some of the artisans may have been free and some serfs. Barter was the common means of exchange, often taking place at markets or fairs held on certain days of the month or year, when the owners of the manor could find an outlet for their surplus products. In general, trade and commerce were a local affair in the Early Middle Ages.

However, trade with the East had apparently never died out completely, although it had declined greatly during the days of the Germanic invasions of the Roman Empire. As early as the tenth century a revival or upswing in East-West trade was noted in which the Italian cities of Venice, Genoa, and Pisa took the lead. The Crusades gave

further stimulus to trade, for the Crusaders relied upon the fleets, sea routes, and knowledge of the traders.

When the Normans conquered Sicily from the Arabs, they opened up the Mediterranean sea routes and gave further impetus to commerce with the East. In the twelfth and thirteenth centuries a great upswing in commerce took place as the wares from the East were brought to the Italian cities and then carried by caravan or river routes into the rest of Europe and distributed at the fairs and market places. Traders wandered in bands along the rivers, selling their goods and sometimes settling on the outskirts (*faubourg*) of a castle or monastery. Being free men, foreigners, or strangers, they were not bound to the local lord or bishop.

Rise of towns. As traders began to gather at advantageous spots, town life became ever more important. The centers were likely to be on the sites of old Roman cities, near monasteries or castles, or near a river crossing or bridge, wherever people could gather conveniently for the markets. At first, of course, the local noble or bishop laid claim to the towns as fiefs, but soon the traders and townspeople organized themselves into town governments to break the control of the feudal lords. The people gained their freedom by buying it as they became richer from trade and commerce, by fighting for it, by taking over control when a lord died, by wresting control while the lord was on a crusade, and sometimes by the generosity of a lord who believed that freemen were better workers than serfs or slaves.

In the twelfth and thirteenth centuries towns grew rapidly in number and in population in all parts of western Europe. The growth of towns created greater demands for agricultural products, and these demands resulted in an increase in the amount of land under cultivation; forests were cut down, swamps drained, and agricultural techniques improved through the use of fertilizer and crop rotation. As a result, the population of Europe increased so rapidly that it is estimated that by 1350 it was greater than under the Roman Empire. Freedom was increased, for if a serf could get to a town and stay for a year and a day he became free. All in all, an astonishing energy, versatility, and vitality went into the constitutions of towns in the thirteenth centuries, and they began to set the pace for the nobles and clergy. In the main, the cities were a source of increasing secularization and interest in the everyday affairs of this world.

Merchant and craft guilds. One of the most characteristic features of medieval life was the forming of associations among persons with common interests for their mutual protection and welfare. This grouping together for certain purposes characterized nearly all aspects of medieval life from church choirs, churchmen, scholars, knights, and sol-

diers to merchants and artisans of all types. In the eleventh century the growth of cities and commerce was closely connected with the formation of guilds of merchants and of craftsmen. The merchant guilds appeared as traders banded together for their travels from market to market. These bands selected their own leaders, devised regulations, formed common funds for the purchase of goods, and otherwise helped each member. When they returned to their original or permanent settlements, they kept up their association and built guild halls as centers for their operations.

Starting as voluntary associations, the guilds soon garnered a monopoly on foreign trade and then obtained the legal right to such monopoly from the feudal lords and in turn began to exert great influence upon the development of municipal governments. From these beginnings the merchants rapidly grew in wealth and power until, as the "middle class," they made their way into the privileged company of the nobles and clergy. The winning of power by the middle class was a notable step in the march of democracy.

Whereas the prime purpose of the merchant class was to sell goods, especially from one city or country to another, the craft guilds arose somewhat later for the purpose of regulating the making of goods. By the thirteenth century craft guilds had been organized in almost every city of northern Europe. The artisans organized themselves into distinctive groups according to their craft in order to protect themselves from bad work, low prices, and inferior workmen and to gain a monopoly of production. Working hours and conditions, quality of goods, wages and prices, and the number of tools and employees in each shop were rigidly regulated by the craft guilds and by the town authorities. A town would often grant a monopoly to the guilds of butchers, bakers, millers, cordwainers, tanners, and weavers and would also punish infringements of the rules against short weight or bad quality.

Membership in the craft guilds was strictly regulated, and workers were excluded unless they met the requirements of the guild. To become a master in the guild the prospective member had to pay dues, be of legitimate birth, and prove his ability to perform the duties of the craft. The master usually owned his own shop and his own tools. The attempt was ultimately made to restrict membership ever more closely, even to the point of making membership hereditary. Within the circle, however, the effort was made to provide equality for all members and to achieve stability to such an extent that advertising, cutting prices, and instituting technical improvements were considered disloyal and were thus prohibited. The guilds also had a religious and fraternal aspect. They often maintained altars in the churches or supported priests of their own. They helped the poor members, the sick, and the

aged; they built roads and schools, and they even organized military defenses.

In Germany the craft guilds were subjected to strict supervision by the town authorities, but in northern France and the Low Countries the guilds gained a great deal of independence and in some cases dominated the city government and rivaled the merchant guilds in power. By the beginning of the sixteenth century the guild economy of restriction and protectionism began to decline in the face of the capitalistic enterprisers, who fought against the restrictions that had been laid upon prices and profits by the guilds. Even before the sixteenth century conditions for apprentices and journeymen had become more difficult under the excessive limitations put upon entry into the guild.

Religious Institutions

Perhaps the most characteristic aspect of medieval life was the large part played by the Christian Church in nearly all fields of endeavor. Growing rapidly during the later centuries of the Roman Empire the church provided a large measure of security and stability in the difficult days of the Early Middle Ages, when political authorities were changing so rapidly. The church continued to grow in political and economic power throughout the Middle Ages until it reached its peak in the thirteenth century. With the onset of the Renaissance in the fourteenth and fifteenth centuries it began to lose a measure of its power in the face of the growing secular authority of the monarchies; and the Protestant revolts of the sixteenth and seventeenth centuries made heavy inroads upon the supremacy of the Roman Catholic Church. Thus, while there was an essential continuity through these several historical eras, the period of the church's most unquestioned claim upon the loyalties and obedience of men was the period of the Middle Ages.

Monasticism. During the Early Middle Ages much of the strength of the church was to be found in the monastic institutions. The distinction between the "regular" clergy (monks who lived in monasteries according to strict rules, or *regulae*) and the "secular" clergy (priests who ministered directly to the people) became more marked. The most influential of the monastic groups was organized by St. Benedict, an Italian monk of the sixth century, who developed at Monte Cassino an elaborate scheme of regulations for the conduct of his followers. From Monte Cassino the Benedictine order spread over all of Italy by the seventh century and over most of Europe by the ninth century. At its peak the Benedictines maintained several thousand monasteries, from which came a great number of bishops, popes, and scholars. The rules of St. Benedict emphasized three main principles, obedience to God and the abbot, simplicity of life, and constant industry.

The manual and agricultural arts were often highly developed, for monasteries had to be completely self-supporting in the chaotic economic conditions of the early days. They provided havens for the traveler and dispensed relief to the poor, the sick, and the aged of the surrounding community. At a time when the secular authorities and the secular branch of the church were not yet highly organized, the monasteries kept the religious spirit alive and did much to convert western Europe by spreading the gospel through their missionaries. They were also often the literary, artistic, intellectual, and educational centers of Europe in the Early Middle Ages. The preservation and copying of ancient manuscripts became one of their important functions promoted under the rule of constant industry.

An interesting feature of the spread of monasteries is the development of Irish monasticism in the Early Middle Ages. In the fifth century St. Patrick had stimulated the spread of Christianity throughout Ireland by converting the people and establishing several hundred churches and monasteries. Gradually, the Irish Church developed a different type of organization from that on the Continent. In Ireland the abbot as head of the monastery was head of the secular clergy in his region as well as of the regular clergy. In the sixth century St. Columba spread Irish Christianity and scholarship throughout the British Isles, founding many monasteries in England and Scotland. In the later sixth century and early seventh century, St. Columbanus and 12 disciples established Irish monasteries in Switzerland, France, Belgium, Germany, and as far south as Italy.

The Irish monasteries fostered secular as well as religious learning and kept alive the ideal of Greek scholarship when it was virtually unknown to the rest of Europe. Thus, when, rarely, a Greek scholar was to be found in the Early Middle Ages he was likely to be an Irish monk; such were Clement at the court of Charlemagne and Johannes Scotus Erigena, who was the most learned man of the ninth century. In addition to emphasizing the manual arts, the Irish monasteries developed a more strict ideal of asceticism than the Benedictines. Although Irish monasticism helped to bring about the Christianizing and recivilizing of Europe in its most chaotic period, it tended to disappear with the invasions of the Northmen in the eighth and ninth centuries and to give way to the Benedictine order.

During the tenth century the organization of monasteries took a new form. Prior to that time each monastery was a relatively independent unit responsible to no one or perhaps to the local bishop. Early in the tenth century a movement arose to make the monasteries directly responsible to the Pope, holding their property from the Papacy and free from the control of the local bishop or noble. This movement, begun at

the monastery at Cluny, tended to strengthen the power of the Pope and to give a more centralized type of organization and unity to the monasteries. From the twelfth century on, however, the relative importance of the monastic orders began to decline in the face of the newer emphasis upon the secular branches of the church, which resulted from the influence of the rise of towns, cathedral leadership, the mendicant orders, and the universities.

Investiture struggle (1059 to 1122). Throughout the Early Middle Ages the church had become increasingly a great feudal and landowning institution. The emperors and the nobility began to lay claim to the right of appointing and investing new bishops and abbots with their land and power, for under feudal tenure the successor to a vassal had to appeal to the overlord for investiture of his land. The emperors argued that they were the overlords and the churchmen were the vassals and that as vassals the churchmen owed allegiance to the emperor. When Emperor Henry III deposed three rival claimants to the Papacy and set up Pope Clement II as his own appointee in 1046, the emperors began to claim the right of investiture over the Pope himself.

Against this background Pope Nicholas II precipitated the so-called "investiture struggle" when he issued a decree in 1059 that the Pope thereafter was to be appointed by the college of cardinals and not by the feudal lords or emperor. The Pope also pointed to the Cluny plan, claiming that monasteries owed responsibility to the Pope rather than to feudal nobles or emperor. Pope Gregory VII was the greatest of the popes to carry on this struggle with the emperors. When Henry IV tried to appoint an archbishop of Milan, Pope Gregory in 1073 forbade the lay investiture of any member of the clergy by emperor or secular lord, and the war was intensified.

The investiture struggle lasted for nearly a century, and during this time a great campaign of pamphleteering was waged, members of each side citing authorities and producing evidence that they were right. However, there was a steady shift to the side of the Papacy until finally a compromise was reached in the Concordat of Worms in 1122. According to this agreement the church appointed clerical successors and consecrated them with the spiritual signs of the ring and staff, whereas the emperor invested the bishop or abbot with the fief, a right that amounted to a veto. This, though not solving the problem, resulted in gains for the Papacy, especially increasing the power of the Pope as supreme ruler within the church itself.

Pope Innocent III believed that Christendom should be a great unified commonwealth with the Pope at the head, inspiring governments everywhere to righteousness. In his view the Pope was clearly superior to secular authorities; he was successor of Peter and feudal overlord of

the kings. In his dealings with the kings, Pope Innocent excommunicated Philip Augustus of France because he had put aside his wife; he contended with King John of England over the appointment of an archbishop of Canterbury and won; and he selected Otto IV of Brunswick as emperor when the electors could not agree on a successor. At the Fourth Lateran Council in 1215 Pope Innocent was able to depose Otto IV and install Frederick II as emperor; he ordered Jews and Saracens to wear a distinctive dress; he required all Christians to confess their sins at least once a year and take the appropriate sacraments; and in general he established the power of the Papacy over the lives of the people of Europe.

Crusades. One of the results of the political, economic, and religious ferment of the Later Middle Ages was the series of crusades that were conducted during the eleventh and twelfth centuries by the Christians of western Europe in the effort to recapture the Holy Land from the Turks. Medieval Europe had long been interested in the East, and relations had never been completely severed even when Palestine and Syria came under the control of the Arabs in the seventh century. Pilgrimages to Jerusalem and the other holy places of ancient Christianity were promoted as a means by which European Christians could ease the punishment for sin and gain assurance of easier entrance to heaven. When, however, the Turks captured Jerusalem and Syria in the latter eleventh century, Christian travelers began to be treated harshly, and communication and trade with the East were stifled. It was at this point that the Papacy began to rally the military, political, and economic forces of Christendom to wage war upon the Turks to recapture Jerusalem and the Holy Land.

The First Crusade was organized by the Papacy, was conducted by a papal legate in 1096, and resulted in the capture of Jerusalem in 1099. Thereafter, eight or nine different crusades were conducted in the course of a century. The enthusiasm of the kings, nobles, merchants, and common people was raised to a high pitch, and thousands made the arduous trip with varying success. A Latin kingdom was set up in Syria and lasted until the end of the thirteenth century, when Acre fell (1291). The spirit of the Crusades was highest in Italy, France, and England and lowest in Germany. Some historians have seen in this fact one of the reasons why the nobility of German lands remained stronger in the face of the efforts to consolidate political authority in the hands of the Emperor. The long wars helped to kill off many of the nobles and thus weaken the power of the nobility in Italy, France, and England. This gave more chance for the Papacy and middle classes to gain greater power in Italy and gave the same chance to the kings and middle classes in France and England.

Heresies. Heresy was not new in the Christian Church, for in the long process of formulating religious doctrines those who differed too radically from the orthodox position were declared to be heretical. In the Later Middle Ages the principal heresies centered upon criticisms of the worldliness and authority of the clergy. The Albigenses originated in the eleventh century and gained their name from the town of Albi in southern France. They conceived of themselves as Cathari (pure ones) in their protest against the corruption of the church and the priesthood. They emphasized that desire for material things is sinful, because matter is evil, and they thus classified as mortal sins the gaining of material wealth, the telling of falsehoods, and waging war. In these ways they attacked the worldliness of the clergy and the authority of the church. Another group that criticized the church was headed by Arnold of Brescia, whose followers were known as Arnoldists. They also attacked the corruption of the priesthood, the greed of the Pope, and the assumption by the clergy of authority in secular affairs and preached the values of poverty and the simple life.

A much more influential sect was known as the Waldenses, followers of Peter Waldo, who were numerous in southern France and northern Italy. The Waldenses preached against the worldliness of the clergy, insisting that obedience was owed to pope and priest only if they were good men and that God rather than man was to be obeyed. They argued that *all* men and women can be preachers if they are good, that prayers, masses, and almsgiving are of no avail to the dead, that prayer is just as efficacious outside of a church as inside, and that the reading of the Bible is an important means to salvation. In attacking the problem of the authority of the priesthood and feeling the necessity of living according to the spirit of the sacraments these "heretics" were incipient Protestants in their point of view.

The stirrings of life in the twelfth and thirteenth centuries as reflected in the investiture struggle, the Crusades, and the growth of cities had provided channels for such ideas to gain increasing currency in medieval Europe, especially in the south of France. The church set out to combat these doctrines in three principal ways. Crusades against the heretics were conducted by the church and by kings and nobles who wished to gain the support of the church. Particularly bloody were the crusades against the Albigenses. Another direct and frontal attack was the inquisition by church courts, which condemned heretics to death or to life imprisonment. The third approach and perhaps the most effective in the long run was the effort by the mendicant orders to convert the heretics.

Mendicant orders. Although the church was a great power economically and politically in the thirteenth century, the fact that heresy was

so rife showed that some of the people were seeking a religion of the heart as well as one of authority and obedience. The retreat of the Benedictine monks to their monasteries had left the way open for a new kind of ministering to the needs of the people, and this need was met by the mendicant friars, especially as represented by the Franciscans and Dominicans. St. Francis of Assisi, responding to the demands of his time, determined to go abroad among the people as Jesus had done, helping the poor, healing the sick, and preaching the gospel of love. Soon after the year 1200, St. Francis gathered about him a few apostolic followers, and in a few years he had organized several thousand members into the Friars Minor, or Minorites. A second order was made up of women, and a third order of laymen provided money and engaged in work for the order.

The ruling ideas of St. Francis included an ardent love for Jesus and the determination to imitate His life as closely as possible; a belief in the latent goodness of all men to be developed through the power of love; an emphasis upon poverty as the best way to serve God; an acknowledgment of the duty of joyfulness; and love for all the things of nature as creatures of God. In general, the Franciscans did great service to the church by reconciling the masses of the people through the example they set of returning to the humble and simple spirit of ancient Christianity. St. Francis has been given credit for reconciling the best of the religious spirit of his age with the best of the secular spirit. Many believe that it is his influence which caused artists and writers to portray Jesus in a more human aspect and that the appreciation of nature, music, poetry, and the arts was thus stimulated.

St. Dominic, on the other hand, was a severe ascetic, noted for the rigorousness of his life and for his activities in organizing the Dominican friars. St. Dominic tried to convert the Albigensian heretics not by the sword but by preaching to them and showing them that clerics could live the good life in poverty. Like the Franciscans, the Dominicans abandoned the idea of monastic seclusion and went among the people, especially in the cities. Profiting from St. Dominic's genius for organization, the Dominicans soon became a powerful and centralized agency of the church. They were most eager for education and soon began to flood into the universities in the belief that an educated clergy was one of the best ways of combating heresy.

THE IDEAS MEN LIVED BY

Conflicting Claims upon the Medieval Mind

The medieval period has often been described as a time of intellectual uniformity when the scholars were satisfied that they had settled the

fundamental problems of man and the universe, but closer inspection reveals many of the conflicts, uncertainties, and differences of point of view that mark most periods in history. At almost every stage of the Middle Ages there were those who stood out as "reconcilers," those who attempted to keep the course of thought to what they believed were the main highways of orthodoxy; but there were also the "recalcitrants," those who kept tugging at the leashes and trying to pull off in one direction or another. The capacity of the church to assimilate and control these different elements was enormous; what was condemned as near heresy in one period was likely to be incorporated into orthodoxy in the next age.

The central intellectual problem of the Middle Ages was the attempt to reconcile the main religious idea of the church with the widely varying secular interests of all kinds. For example, the ideal of a universal Christian commonwealth was a strong intellectual factor throughout the Middle Ages, but it had to win its way by force, by threat, by argument, and by compromise over the secular interests of feudalism, the ideal of national sovereignty, and the ideal of independence as expressed by emperors, kings, towns, and universities. The investiture struggle reveals these various forces at work.

The religious ideal of hope for eternal security in the other world through salvation was in conflict with the secular interests of this world, which became more and more of a lure to the people. The Crusaders embodied an interesting mixture of these two ideals, combining the hope of salvation through fighting the infidel Turks with the hope of making more money by trade or plunder in the East. The church itself entertained a mixture of otherworldly and this-worldly interests, for many of the popes were great political organizers and economic administrators as well as spiritual leaders. It is too easy a generalization to say that the Middle Ages were completely otherworldly in outlook. It is probably better to say that the strength of the religious outlook was such that it tried to include and harness the secular drives of people as well as their spiritual energies. In this respect the church was not altogether successful, but it is also true that the church perhaps came closer to achieving this ideal than at any time before or after the Middle Ages. Perhaps this is the essence of medievalism.

Within the realm of religious thought itself there were the same tuggings at the leash and recalcitrance. The established doctrines of orthodoxy were often challenged by the heresies and near heresies, and church officials were constantly on the alert to keep the recalcitrants from stepping too far over the bounds of orthodoxy. Very often the conflict centered in the problem of reconciling the religious literature of the Bible and church fathers with the secular literature of the classical authors

of Greece and Rome. This was a terribly difficult problem and often resulted in attributing Christian characteristics to some aspects of the thought of Plato, Aristotle, Cicero, and Vergil and then ruling out of consideration other aspects.

The intellectual efforts to reconcile the claims of human reason as against the claims of faith led to the gigantic quarrels of the Later Middle Ages that took the form of Scholasticism. Here we find such men as St. Anselm and St. Bernard of Clairvaux swinging far in one direction in their emphasis on faith, emotion, and mysticism, whereas Roscellinus, Abélard, and Roger Bacon were tugging at the leash in exalting the claims of reason, intellect, and dialectics. The balance was then struck between faith and reason in the thirteenth century in the synthesis of St. Thomas Aquinas, the greatest of all the "reconcilers."

In general, it is fruitful to think of medieval intellectual efforts as though a young and immature people were attempting to gain maturity through a long and arduous process of learning their lessons in order to be able to solve their own problems in their own way. In this process there were two great lessons to learn, namely, the whole thought of the pagan world of Greece and Rome, found in the writings of the ancient Greek and Latin writers, and second the religious thought of the patristic age, contained in the writings of the church fathers. To these two great lessons the young peoples of western Europe brought their own energies, capacities, and qualities. The Italians, the Spaniards, the Gauls, the Germans, and the Northmen all had to learn their hard lessons from the beginning before they could make the classical and Christian traditions their own. It took some four centuries simply to absorb these lessons and to become Latinized. In this process of interaction from the sixth to the tenth centuries medievalism was taking form. By the eleventh and twelfth centuries the assimilation had become easier, and by the thirteenth century the whole intellectual fabric could be restated in distinctive, but not entirely new, terms.

Christian World View and Human Nature

During the Early Middle Ages the main body of medieval belief about the structure of the universe, the nature of God, and the nature of man and his relation to God was taken from the theology of St. Augustine. It was thus largely Platonic in its philosophical foundations and was framed of the Hebraic monotheism of the Old Testament, the ethical teachings of Jesus as contained in the New Testament, and the elaborations of the church fathers of the patristic age. To these were added rational, emotional, and mystical elements of Neoplatonism, Stoicism, and the Eastern religions. Out of this variety of influences came an outline of belief that formed the basic traditions of Christianity.

Central in the picture of the universe was belief in one God whose essence is infinite and spiritual, an all-good, all-wise, and all-powerful being who created the universe and all the forms of inanimate and animate existence. The universe revolving about the earth was created for a purpose—to provide a home for man, the highest form of creation. The world operates according to natural processes created by God; but if occasion requires, God can intervene directly in the processes of nature, for moral purposes, to reward the good and punish the wicked by means of miracles and special acts of providence. A heaven above the earth and a hell below the earth were constituted as a reward for goodness and punishment for evil in the life after death.

Man was placed on the earth for the ultimate object of achieving salvation and grace in the sight of God. He was created with an immortal soul, which links him with the spiritual nature of God, and he has an intellect, a conscience, and a free will as means of choosing the good life and shunning evil. Man also has a material body, which links him with the natural world, often tempting him to corruption, weakness, and sin. The original sin of Adam and Eve made it necessary for all men thereafter to seek help in living the good life, but God provided for man the means of escape from evil through the life and death of Christ. If man believes in Christ and seeks to follow His way of life, he may be saved from eternal punishment in the hereafter and his immortal soul will unite him with God in salvation and grace. If man does not choose to believe in Christ and in God, he will suffer the torments of hell forever. The means of salvation were instituted on earth by God in the form of the universal church, which provides the holy sacraments by which man may begin his journey to salvation.

With these fundamental tenets of the Christian world view there was relatively little dissent among the scholars of the medieval world. The oneness of God, His power in creating the world and all things, the essential spirituality behind the outward material forms of things, and the inherent moral and rational nature of the universe were generally not questioned. The world of material things was definitely considered to be in a subordinate position to the realm of spiritual affairs and man's own nature to reflect this distinction between spirit and matter. If man elevates his soul and subdues his body, he will be following the moral order of the universe as planned by God. If he elevates the things of the body and his sense experiences, he will be flying in the face of the universe and thus be sinful. Since the things of this world are inclined to evil, man must prove his desire to rise above the distractions and temptations of this world and keep his eyes upon the salvation to be achieved in the other world. In this respect, the dominant theology of medieval Christianity was otherworldly, but the impact of secular

life made it increasingly difficult for the church to maintain an even and unchallenged authority concerning the role of human reason and secular knowledge in the whole process of salvation. It was in this realm that the recalcitrants of the Middle Ages were most energetic.

Intelligence and Learning

Within the general framework of the Christian world view the most vital and widely varied points of view were expressed with regard to the role of human reason or intelligence as a means of arriving at truth. In the Early Middle Ages the most common outlook followed the pattern set by St. Augustine, who had placed the authority of faith in revealed truth above the authority of human reason (see pages 101 to 102). Most of the church scholars of the Early Middle Ages simply accepted and passed on the patristic materials of the church fathers, commenting and elaborating their doctrines without much interest in going beyond them. The lessons were simply being learned, with little creative or original thought expended upon them.

The most outstanding exception to this rule in the Early Middle Ages was the great Irish-Scottish scholar, Johannes Scotus Erigena, who was active in the court of Charles the Bald in the middle of the ninth century. Erigena not only was familiar with the patristic literature of St. Augustine and the Latin fathers but also knew the Greek fathers, Plato, and Aristotle. His knowledge of the Greek language was unique in his time; he was able to translate Plato's *Timaeus* from Greek into Latin. Drawing upon Neoplatonism as well as upon Platonism and the logic of Aristotle, Erigena developed a philosophy made up of Christian faith, rationalism, and mysticism.

At a time when most scholars were simply compiling excerpts from religious and classical writers with little discrimination, Erigena instituted the method of comparing sources, selecting and discriminating among them, and interpreting them in his own creative way as he built up his own complete system of thought. In this regard, Erigena put human reason above authority and insisted that any authority that cannot be subjected to the inspection of reason is too weak to stand alone as authority. The most valid truth is that which rests upon the groundwork of logic and reason. Erigena thus helped to set in motion the intellectual processes that came to be known as Scholasticism.

The term "Scholasticism" has been used in a number of widely varying ways. Sometimes it is used to refer to the whole body of thought and writings of the schools and schoolmen of the Middle Ages, originating with the term *scholasticus*, the person who became a teacher or scholar in the cathedral schools and universities. As a method of thought, Scholasticism is often identified with the deductive and syl-

logistic logic of Aristotle, as interpreted by the medieval scholars of the Later Middle Ages. In general, Scholasticism was a method of selecting and classifying general principles or statements taken from religious and classical authorities, comparing these authorities, commenting upon these statements in systematic order, examining the arguments on both sides, drawing conclusions, and refuting the arguments of the other side in detail by marshaling evidence in support of the conclusions accepted. Argumentation, disputation, and dialectical analysis played a large part in this process.

The reasoning and the content of Scholasticism were oftenest stated in terms of the problem of "universals." Is the universal proposition the most real, or is the individual thing the most real? Does reality lie in the universal proposition, or does it lie in the individual statement of fact? Despite the widely varying interpretations, there seem to have been two principal points of view with regard to these questions. One position, known as realism, stated that the most universal concept, the most general class of things, is the most real and therefore the most important. Universal ideas exist independently of and prior to individual things. Thus, since God is the most universal substance, God is the most real; the universal concepts of man, goodness, justice, truth, and beauty give form to individual men, individual acts of goodness and justice, and individual examples of truth and beauty.

Platonic idealism, at work here in medieval realism, generally sided with the religious emphasis upon the world of spiritual ideas and spiritual values as the revealed sources of faith and of the authority of the universal church. The universal propositions laid down by the Scriptures, the fathers, and the Papacy were considered to be the most real and most binding propositions. The religious temper, faith in the unseen, and the authority of tradition and revelation favored realism. Faith should be reasonable; but if reason does not agree with revelation, then faith is uppermost and must prevail.

In the Early Middle Ages realism was the dominant outlook, stemming from St. Augustine, propounded by the ninth-century scholar Rabanus Maurus, and elaborated in effective terms by St. Anselm, St. Bernard of Clairvaux, and St. Guillaume de Champeaux in the eleventh and twelfth centuries. St. Anselm stated with St. Augustine that all reasoning and discussion about religious affairs must be preceded by faith in revealed and authoritative truth. In order to arrive at knowledge we must first believe the doctrines of the church. Guillaume de Champeaux asserted that individual things are mere names; only the universal is real. For example, the universal genus Man is the only reality in human nature; all men are fundamentally the same because they partake of the universal characteristics of Man; individual dif-

ferences among men are merely accidental variations that have no importance.

The opposing position, known as nominalism, drew for support upon the scientific outlook of Aristotle rather than upon the idealism of Plato. Nominalism stated that the most real thing is the individual object and that the universal is simply a name or a term given for convenience to a collection of individual things that have similar characteristics. Universals exist only as propositions or generalizations *after* individual things have been examined and found to be like each other. Universals have no power or force to them but simply are convenient ways of handling a group of similar individual objects. To arrive at truth we must start with the individual object, the individual man, see how they operate and what their characteristics are, and then arrive inductively at generalizations useful in classifying new objects or new knowledge as it is discovered. Thus, the test for reality is not in faith or authority but in the efforts of the human reason to find the reality of things as individuals and describe them in terms of general concepts, or universals. The secular temper of nominalism was tugging at the leash of religious orthodoxy. In its dependence upon logic and dialectics as the supreme agencies in arriving at knowledge, nominalism elevated human reason above faith.

The nominalist position came into clear prominence in the eleventh century, when Roscellinus began to criticize the realist position and to insist that the universal is merely a word, a name, a breath of the voice. The cause of nominalism and the claims of reason against faith received their greatest justification in the hands of Peter Abélard in the twelfth century. Abélard was a nominalist of a sort, but more important than his specific doctrine of universals is his attitude of questioning, criticism, and doubt concerning the tenets of faith and authority. Finding himself successful in confounding the realist doctrines of his teacher Guillaume de Champeaux in the field of dialectics and logic, Abélard turned to theological questions with the same critical attitude.

It was Abélard's willingness to treat the third person of the Trinity and other sacred topics not as objects of worship but as subjects for analytical and logical dissection that caused two church councils under the leadership of St. Bernard of Clairvaux to condemn him. Whereas St. Anselm had said that we must believe in order to understand, Abélard was saying that we must understand in order to believe. Abélard's book entitled *Sic et non* (*Yes and No*) illustrates his critical method. He lists some 150 specific religious theses and then quotes authorities from the Scriptures and fathers to support both sides of the questions. Thus, he shows dramatically how the authorities contradict one another and that it is the business of the Christian scholar to arrive at the truth

by the use of human reason. His attitude of protest is probably more significant than his thought or his systematic theology, but it was so effective that the great theologians of the thirteenth century were prompted to effect a reconciliation. Abélard was the greatest of the recalcitrants; he gave stimulus to the work of St. Thomas Aquinas, the greatest of the reconcilers.

During the twelfth and thirteenth centuries the whole range of Aristotelian science was introduced into western Europe through the activities of Arab and Hebrew scholars who had translated the materials from Greek into Arabic and then into Latin. By the middle of the thirteenth century Christianity was once more in possession of careful literal translations of Aristotle's scientific works on biology, physics, astronomy, metaphysics, ethics, politics, and poetics. With this enormous mass of "new" material to digest, absorb, and argue over, the dialectical arguments were ever more divergent. The church became alarmed at the degree to which Christian faith seemed to be contradicted by the scientific investigations of reason as represented by Aristotle.

To the problem of reconciling Aristotelian thought with Christian faith St. Thomas Aquinas addressed himself, arriving at a synthesis in his *Summa theologiae*. This eventually was accepted as embodying the official doctrine of the Catholic Church, and it remains so, in effect, today. St. Thomas Aquinas achieved reconciliation by sharply distinguishing between natural philosophy and supernatural theology. Philosophy deals with the natural world, where things are created, change, and decay; it includes everything that is open to argument or that can be demonstrated by human reason. Theology, on the other hand, deals with revealed truth, which involves the supernatural world of changeless, uncreated, eternal, and ultimate reality. These truths are the universals that make up the content of faith and are not open to question by human reason.

There can be no contradiction between theology and philosophy, no contradiction between revealed truth and human reason, for God is the author of all truth. Faith may be reasoned about as far as reason can go, but some articles of faith are beyond finite human reason. They are not "unreasonable"; they are simply not open to rational demonstration. By his elevation of faith above reason St. Thomas Aquinas aided the realist outlook; at the same time, his position gave greater autonomy to the workings of human reason within the bounds of the natural world of science. Science and religion may handle the same facts or ideas, but they look at them from different sides. Science and human reason start from the individual and particular thing and work up, whereas religion starts with God, the most universal of all, and works down to the individual.

Augustinian theology had not thus separated philosophy and theology but had asserted the identity of the two, whereas St. Thomas Aquinas gave science free rein over natural phenomena within its own restricted province. This illustrated the adaptability of the church but also showed that Aristotle could be used to regulate Scholastic philosophy and circumscribe the ranges within which human reason could work. If left to itself, reason would tug at the leash and threaten to cause trouble, but when codified and formalized by the authority of Aristotle it could be disciplined and made to serve the higher ends of theology. St. Thomas Aquinas's method was basically that of Abélard, but he went one step beyond Abélard; he stated the problem, gave authorities on both sides, and then added the correct solution.

The dominant medieval conceptions of the thinking process and learning process were set by these basic assumptions of St. Thomas Aquinas. Truth is anchored in eternal reality; it is fixed, universal, objective, and permanent. Truth is not created by man; it is created by God; it is simply discovered by the human reason and intelligence. Truth is static and unchanging in the supernatural world, for God made knowledge perfect to begin with; but man is imperfect and change is necessary if human beings are to proceed from ignorance to knowledge through learning. Therefore, man has been given intellect as an active agent that enables him to achieve truth and bring his knowledge into actuality.

The primary aim of human intellect is to reach out and grasp truth, but intellect cannot achieve truth unaided; it must rely upon faith, revelation, and grace to arrive at the truths of theology and religion. The highest objective of knowledge is God Himself as the source of all truth. Thus, all men were endowed with the faculty of intellect as a part of human nature in order to give them a start on the road to truth. In summary, then, human reason is viewed as made up of the higher, or theoretical, intellect, having to do with science, mathematics, and philosophy, and the lower, or practical, intellect, having to do with decisions about political, economic, and everyday affairs of action, conduct, and experience.

In this respect, St. Thomas Aquinas followed in the tradition of Aristotle in elevating the virtues of the theoretical intellect and theoretical knowledge above the claims of practical intellect and the knowledge to be obtained from experience. This distinction has been a characteristic of the traditional intellectual outlook from the Middle Ages to the present time and provides the hard core around which much educational and philosophic controversy in modern America has revolved (see pages 599 to 610). But the attack upon Thomism was not long in appearing; it was delivered in the thirteenth century by such opponents as Roger Bacon.

Bacon was not satisfied with the complete system as set forth by St.

Thomas Aquinas and attacked its assumptions of universal authoritativeness. He raised his voice, often querulous and rasping, in criticism of the growing reliance upon Aristotle for authority in scientific as well as in theological matters. He went far in arguing that conclusions concerning the operation of the natural world should be verified by actual and active experiences. He was perhaps the first to urge the use of experimentation as a check on the abstract results of theorizing and as a means of reconstructing the past and estimating the future. Bacon's recalcitrance caused him to be attacked and imprisoned as a disturber of the peace and a causer of disharmony.

In the fourteenth century the argument was kept alive by the acute nominalism and skepticism of William of Ockham and by the extreme realism of Duns Scotus. Scholasticism became involved in the subtleties, the intricate and complex arguments, and the abstract terminologies that finally led to its decline and the reaction of Humanism against it in the fourteenth and fifteenth centuries. On the positive side, however, five centuries of hard intellectual labor by Scholastic thinkers had prepared the way for the emergence of scientific thinking in the sixteenth century.

Social Role of the Arts and Sciences

General development of scholarship. The sixth and seventh centuries were periods of transition in the handing down of the scholarly materials from the Later Imperial period of the Roman Empire. Some of the writers of the early medieval period who thus transmitted the work of earlier authors were competent and careful; others were dry and lifeless. The most outstanding was Boethius, who was the only scholar of his period with a real flair for the classical spirit; he translated much of the best Greek science and philosophy into Latin and made good commentaries upon this material. His *Consolation of Philosophy* provided most of what western Europe knew of Greek thought for several centuries.

Another of the intermediaries between classical and medieval scholarship was Cassiodorus, a Christian scholar and monk, who made a great contribution to the preservation of classical and patristic scholarship by his inauguration of manuscript copying in the monasteries in special rooms known as *scriptoria*. In his own work, Cassiodorus wrote extensively on religious topics, on history, and on the various liberal arts. He was not the scholar that Boethius was, but he had great influence in that he put much material, both secular and religious, into a form that was usable by the church. A third transmitter of materials to the medieval world was Pope Gregory the Great, whose writings and letters were a principal means by which the theology of the church fathers was made available to medieval scholars. A fourth of these early intermediaries

was Isidore of Seville, Spanish bishop, who compiled an encyclopedia called the *Etymologies*. According to modern standards, this is lifeless and dull, containing hundreds of excerpts, terms, and definitions arranged according to no particular order or system. In subject matter it ranges from the origins of words and everyday customs in eating and drinking to the liberal arts, religion, medicine, law, and philosophy. To the naïve and uninstructed the *Etymologies* must have been welcome; but as far as creative reworking of classical thought is concerned, it is barren indeed and reflects the decline in scholarship that had taken place by the seventh century. Despite this decline, however, there were several men who maintained a good standard of scholarship despite the rugged and difficult times of the seventh century. For example, in England Hadrian, Aldhelm, and Theodore of Tarsus, archbishop of Canterbury, were all well acquainted with classical as well as with religious authors.

In the eighth and ninth centuries the level of medieval scholarship rose considerably, culminating in the so-called "Carolingian revival" of the ninth century. The most outstanding scholarly performances in England were those of St. Bede, Alcuin, and Alfred the Great. St. Bede, often called the father of English learning, knew Greek and Hebrew as well as Latin and wrote on music, history, biography, science, theology, pedagogy, and the liberal arts. Alcuin, called from the cathedral of York by Charlemagne to conduct the palace school at his court, established a curriculum of wide range. Alfred the Great stimulated scholarly learning in England after the destruction caused by the wars with the Danes not only by his encouragement and promotion of the arts and sciences but also by his own achievements in vernacular Anglo-Saxon prose. He translated into English or Anglo-Saxon the works of St. Bede, St. Augustine, Boethius, and Gregory the Great. On the Continent, the center of intellectual and scholarly activity was Charlemagne's court, where scholars were brought or attracted from all western Europe. Among these were the Irish monks Clement and Dungall, Theodolphus of Spain, and Peter of Pisa and Paul the Deacon from Italy. In the ninth century the revival continued under the leadership of Rabanus Maurus and Johannes Scotus Erigena.

In the tenth and eleventh centuries the level and pace of intellectual activity accelerated considerably, much as was the case in economic life when commerce began to increase and the towns to grow. Bruno, archbishop of Cologne and younger brother of Emperor Otto I, brought together the best scholars and collected the best manuscripts he could find; and Gerbert (later Pope Sylvester II), scholasticus at the cathedral school of Reims, was the most learned man of the era around the year 1000. In England St. Dunstan, Lanfranc, and St. Anselm were out-

standing scholarly figures in this period, as were Roscellinus and Abélard in France.

Meanwhile, an enormously important development was taking place on the fringes of European scholarship. This was the Arab scholarship, which had absorbed a great deal of Greek philosophy and science, especially that of Aristotle. The Arabs had carried much of this material to Sicily and Spain as their empire expanded. In the process of translating Greek materials into Arabic the Arabs assimilated Greek ideas along with Hindu, Islamic, and Christian thought. Thus, as the Christian scholars of the eleventh and twelfth centuries came into contact with Arabic civilization in Spain, Sicily, and Syria, a great interest arose in translating these materials from the Arabic into Latin. The Jewish scholar Maimonides reconciled Aristotle with the Jewish religion, and Avicenna and Averroes reconciled Aristotle with Islamism. As these writings flooded into Europe, Aristotle now had to be reconciled with Christianity, and to this task St. Thomas Aquinas and others addressed themselves in the thirteenth century.

Meanwhile, also, another intellectual movement had gained headway in the twelfth century, often known as the "twelfth-century Renaissance." This took the form of an enthusiasm for classical literature as opposed to the philosophy and logic of Aristotle. The greatest centers of this movement were the cathedral schools of Chartres and Orléans in France, and the greatest exponent of "Humanism" was John of Salisbury, who had come to be head of the school at Chartres. John of Salisbury battled against the inroads made by logic and philosophy upon the literary studies of grammar and style, but his was a losing battle, for Aristotelian science soon captured the intellectual energies of most of the scholars of the thirteenth century. Classical Humanism thus had to wait until the Renaissance of the fourteenth and fifteenth centuries before it could win its way over the dialectical interests of Scholasticism.

General development of the liberal arts. Before the end of the Roman Imperial period the number and framework of the seven liberal arts had been stated by Capella (see pages 103 to 105). Although Boethius and Isidore wrote treatises on the subject, there was in general a good deal of skepticism among Christian scholars concerning the use of the pagan liberal arts. However, in the sixth century, Cassiodorus found sufficient scriptural sanction for the seven liberal arts to fix them securely as the necessary preparation for the study of theology throughout the Middle Ages. The Christian Cassiodorus hated the pagan Capella and wrote his own book in the hope that it would supersede Capella's compendium, which had survived the destruction of the Roman Empire. If Cassiodorus had held his peace, Capella might have been forgotten, and his

list of liberal arts might never have been known beyond the early Middle Ages.

Medieval ecclesiastics in general looked with considerable suspicion upon the pagan character of Capella's small compendium, but the notion grew that the spiritual, literary, and philosophical character of the seven studies was suitable for higher education in the church (particularly in view of the fact that so little other material was available). When to this growing feeling was added the emphatic assertion of Cassiodorus that the seven liberal arts were specifically justified by the Scriptures, his testimony could not be ignored. He quoted to such good effect the text "Wisdom hath builded her house, she hath hewn out her seven pillars" (Prov. 9:1) that the church eventually accepted all seven liberal arts for use in the monastic and cathedral schools. The medieval limitation of the liberal arts was thereupon established in fixed form as early as the beginning of the seventh century.

It must be remembered, however, that many changes and adaptations were made in each of the seven arts as knowledge expanded in the various stages of the Middle Ages. In accordance with the varying needs of the times, certain subjects were emphasized more than others. Prior to the eleventh century, Latin grammar was emphasized because the scholars needed a thorough grounding in Latin as a preparation for religious study. During the eleventh and twelfth centuries, the study of classical literature was promoted by such Humanistic schools as Chartres and Orléans. During the twelfth century, logic became the predominant study when Abélard made questions of metaphysics and theology the most interesting topics of the time. Still later, with the rise of Aristotelian philosophy and science, interest turned to the mathematical subjects, astronomy, arithmetic, and geometry. It is thus apparent that the church was by no means hostile to secular literature, for there was continuous interest in the classics all through the Middle Ages.

Language arts and literature. One of the most striking phenomena of the Middle Ages was the Latinizing of western Europe. Latin gradually became the universal medium of discourse among educated persons. However, its character changed enormously over the centuries as "classical" Latin gradually became "medieval" Latin. Medieval Latin had a closer connection with the spoken Latin of the people than with written Latin of classical literature, and it was affected by the spoken tongues of the various European peoples who became more or less Latinized but who also developed their own vernacular languages of Italian, Spanish, French, German, English, Dutch, and so on.

Medieval Latin thus became flexible, vital, and adaptable as it met with new conditions. It has often been adjudged "incorrect" and "decadent" by purists because it was spoken by persons who had to acquire

it as a second tongue. In general, however, medieval Latin was more forcible and more direct than classical Latin, for it approached the word order of modern languages (in classical Latin the verb was at the end of the sentence), and its vocabulary was enriched by contact with new peoples and new languages.

Grammar was consequently the most important of the liberal arts during the Early Middle Ages, for the non-Latin peoples had to be taught the rudiments of Latin in order to be able to take part in the religious and intellectual life of the times. The works of Donatus and Priscian and Cato's *Distichs* remained the most influential grammar texts and readers. Other grammars of importance were written in verse and became very popular because the versified forms were easier to memorize. From the tenth century on the readers began to incorporate much more religious material, but they also paid great attention to the fables and proverbs of Phaedrus. Many dictionaries and vocabulary lists were also compiled as aids to the study of grammar.

With respect to the literary side of the study of grammar, the Middle Ages knew much more of the secular classical literature than has often been supposed. There was no century during which classical learning was unknown; it may have been known by fewer scholars or in more condensed form in certain periods, but the continuity is clear. The so-called "Carolingian revival" was not a revival or rediscovery so much as it was a bringing together in western Europe of what had been preserved and known despite long years of civil war and invasion during the sixth and seventh centuries. From the eighth century onward appreciation of classical literature steadily increased until it came to its height in the Humanism of the twelfth century, the most outstanding exponent of which was John of Salisbury at Chartres. After his time interest in the logical aspects of grammar and the study of dialectics and philosophy began to crowd out literary appreciation of style and form.

Rhetoric, on the other hand, was largely in eclipse during the Early Middle Ages, although it maintained its place as one of the recognized seven liberal arts. In the hands of the early church scholars rhetoric lost the predominantly oratorical and practical character it had achieved as the highest of the liberal arts under the Roman Empire. In the popular manuals the material was condensed from Cicero and Quintilian, but their emphasis upon the public uses of rhetoric was lightened. One phase of rhetoric did become very important, however, and that was the study of letter writing and the drawing up of such legal and feudal documents as contracts, wills, immunities, appointments to office, and so on. The *ars dictandi*, or dictamen, had a most practical value at a time when the economic, political, and legal affairs of the church were

expanding at such a rate that record keeping was of the utmost importance. The investiture struggles and the consequent delving into legal and historical documents also stimulated the attention to dictamen in the towns and schools of northern Italy.

Many handbooks and textbooks to aid in the study and practice of dictamen were compiled as early as the ninth and tenth centuries, but the height of interest was achieved in the eleventh and twelfth centuries. It became so popular that John of Salisbury lashed out in bitter attack against the "shyster" professors of dictamen, who were exalting "practical" education and the tricks of the trade at the expense of the development of taste, judgment, and character, which could be achieved only by the study of classical literature. In the twelfth century most of the arguments of Humanism as against "practical" education were expressed in a way that foreshadowed the same kind of issues that the humanists and intellectualists of today are raising against practical education in the United States.

Aside from the scholarly development of language and literature in Latin, the Middle Ages saw the appearance of a vital and original literature in the vernaculars of Italian, Spanish, French, German, and English. Medieval Latin literature was largely religious in temper, consisting as it did of church doctrine, the liberal arts, philosophy, theology, sermons, biographies of the saints, chronicles and history, and church hymns. The goliardic songs of the wandering students of the Later Middle Ages extolled the delights of love, drinking, nature, and freedom. In general, however, the secular temper was revealed not in this Latin literature but in the vernacular poetry and prose that the common people and the nobility enjoyed. The vernacular songs were developed and handed down by the anonymous troubadours of Italy, Spain, and southern France, the trouvères of northern France, and the minnesingers in Germany.

Taking form as early as the tenth and eleventh centuries, vernacular literature achieved a great development in the twelfth and thirteenth centuries. One type was the lyric, especially refined in France; it followed the conventional form of the love songs that had become a part of the feudal nobility's ideals of chivalry. A second type was the *chansons de geste*, the stories of the great deeds of national heroes, in which the feudal virtues of bravery in war and loyalty to one's religion were extolled. These songs often centered in such national heroes as Charlemagne, Beowulf, King Arthur, the Cid, and Siegfried. A third type was the romance, which celebrated the virtues and life of the nobility in sports, war, love, feasting, and other social activities; *Tristram*, *Perceval le Gallois*, *Aucassin et Nicolette*, and *Le Roman de la Rose* are examples

of the romance. These three types of vernacular literature were particularly suited to the tastes of the nobility.

The common people also had their own vernacular favorites, among which were the fables and animal stories. The fables, which were humorous stories told in verse, probably had their origin in the stories exchanged by merchants as they traveled from place to place. These original traveling-salesman stories apparently set the tradition for their modern successors, for they were often coarse and earthy, putting the joke on the "best people" and showing considerable irreverence for women, the clergy, and the saints. The animal stories probably originated in the tradition of Aesop and Phaedrus as well as in folklore. They were humorous rhyming stories usually having their scene in the country or in the barnyard and having for characters animals with specific names and human characteristics, such as Reynard the Fox.

The church soon perceived that the various types of vernacular literature had a great hold upon the people, and began to develop a vernacular literature of its own in order to appeal to this taste. One such type was the sermon story, a didactic tale intended to illustrate a virtue or drive home a moral as a means of gaining the attention of a congregation and holding its interest in the sermon that was being preached. Also, didactic religious tales were developed in which the life of adventure and romance was combined with religious virtues. A third effort in this respect was the translation of some of the lives of the saints into the vernacular in order to highlight their adventurous qualities; the stories of St. Alexius and St. Brendan are examples. Finally, some of the mystery plays, which had originally been given in liturgical Latin, were put into the vernacular as a means of reaching more directly the understanding and appreciation of the common people.

The development of this vernacular literature was of enormous importance for education, because it foreshadowed the eventual demand that schools should teach the vernacular as well as Latin. It was a long struggle, however; it took eight or nine centuries for the vernacular languages and literatures to be recognized as of equal educational value with the classical. In some countries and in some educational circles in the United States this equality has not yet been achieved.

Philosophy. In the Middle Ages the study of logic as one of the seven liberal arts was sharply distinguished by most scholars from "philosophy" in general. Logic was looked upon simply as the rules of deductive thinking designed as a preparatory study to be undertaken before advancing to the higher studies of the quadrivium and philosophy. Philosophy, on the other hand, was considered to be a study of the metaphysical problems dealing with the origin and nature of the universe as well as the epistemological problems dealing with the origin

and nature of knowledge. However, the method of Scholasticism enhanced the importance of the study of logic until it overshadowed the other subjects of the liberal arts from the time of Abélard onward. The most important textbooks on logic reflected the influence of the commentaries upon Aristotle's logic. The most important works on philosophy were written by Boethius, Johannes Scotus Erigena, St. Anselm, Abélard, Peter the Lombard, St. Albertus Magnus, and St. Thomas Aquinas.

Science and mathematics. Important developments were made in mathematics during the Middle Ages that helped to lay the groundwork for scientific and mathematical investigations of later centuries. In the Early Middle Ages the primary consideration of arithmetic continued to be the computation of the date of Easter with some attention to the theory of numbers. During the eleventh and twelfth centuries considerable achievement was made, notably in the work of Gerbert, who developed a better method of columnar computation and reconstructed the abacus so that it could be used more easily for the four fundamental processes of addition, subtraction, multiplication, and division. The most important change in arithmetic came in the thirteenth century, when the use of Arabic numerals including the zero made possible the use of the decimal system, which enormously simplified computation and began to replace the cumbersome Latin numerals, the duodecimal system, and the Roman abacus. These developments were indispensable to the development of modern science.

Much the same sort of development took place in geometry and astronomy. Gerbert was able to bring together virtually all that the Western world knew of Euclid's definitions and of geometry in general. Then, in the twelfth and thirteenth centuries the whole of Euclid's geometry, along with other mathematical works of the Greeks, Arabs, and Hindus, was translated into Latin. Astronomy was for long a peculiarly fascinating study for the Middle Ages because of its mystical and astrological possibilities, its relation to the calculation of Easter, and the whole notion of the earth as center of the universe. Gerbert devised ingenious models of terrestrial and celestial spheres to illustrate the motions of the earth and heavens as he understood them. In the twelfth century the astronomy of Ptolemy along with great amounts of Greek astronomy was translated from the Arabic into Latin, and in the thirteenth century Aristotle's work *On the Heavens* was also made available.

The study of natural science did not hold a high place in medieval scholarship except for bits of natural lore included in the selections from the classical authors that were contained in the compendiums of the liberal arts. In general the Christian attitude disparaged the study of

natural things as less important than attainment in spiritual or intellectual affairs. However, there was a good deal of interest in the materials handed down from the past in the form of the medieval bestiaries, or stories about animals and beasts. For the most part the medieval world was quite credulous and willing to base its beliefs entirely and without further investigation upon the written materials handed down from earlier times.

The real beginning of a scientific interest in nature is usually dated from the time of Emperor Frederick II, who gathered at his court in Sicily the most eminent of the Greek, Arabic, and Norman scholars and composed a book entitled *On the Art of Hunting with Birds*, in which he relied upon realistic and objective investigation of nature. At his instigation a book on veterinary science was also compiled, and extensive studies were made of the animal and plant life known to the Western world. The greatest advance in respect to natural science, however, was accomplished through the introduction of Aristotle's scientific works in the thirteenth century, including his *Physics*, *History of Animals*, *On the Heavens*, *Metaphysics*, and many lesser works covering a wide range of natural history. Interest in Aristotle's science far outweighed all other scientific interest and in a sense served for a long time to divert the attention of scholars from the direct study of natural phenomena.

Social sciences. All in all, a great mass of historical and biographical material was preserved, gathered, and recorded during the Middle Ages. In point of bulk countless monasteries and churches were responsible for the most impressive output in the form of lives of the saints, some of which were merely recitals of the fortitude and asceticism of the saints but many of which also contained illuminating historical materials on a wide range of secular as well as religious matters. In England Bede's *Ecclesiastical History of England* in five books included much secular as well as religious history; it displays considerable fairness, a good historical method, and evidence of an effort to document his statements. Under Alfred the Great's influence the *Anglo-Saxon Chronicle* was developed in the ninth century, and in the twelfth century William of Malmesbury wrote three major histories in which he tried to determine the actual truth by distinguishing the religious from the secular authorities.

In his two historical works, Bishop Otto of Freising affords a perfect contrast between the religious and secular aspects of medieval life. His *Book of Two Cities* is mystical and pessimistic in tone as he views the conflict between the heavenly city of God and the earthly city of the devil. In his *Deeds of Frederick* he drops the mystical note; the work is a secular history showing careful observation, shrewd periodization of history, a critical outlook, and a search for a guiding principle by

which events can be referred to a total scheme. The Crusades prompted much historical writing and the telling of travel tales. Of great interest, too, is the *Book of Marco Polo* in which Marco Polo tells what he knew of the Far East in the course of his long journeyings and stay in the Mongolian Empire of Kublai Khan.

The arts. As one of the seven liberal arts music was almost exclusively theoretical, speculative, and mathematical in nature. Indeed the applied side of playing and singing songs was not considered properly a liberal art; it was considered appropriate to the wandering minstrel or jester only. This intellectualizing of music remains a strong tradition in the colleges and universities of the United States, where performance is often not considered as important as the historical and theoretical study of music. In the Early Middle Ages the all-inclusive work was that of Boethius, which was influential nearly everywhere that music was taught as a liberal art and which passed on to western Europe the Greek tradition in music. Only gradually did musical theory begin to break away from the tetrachordal scale and develop an interest in harmony and more modern scales in the Later Middle Ages. Meanwhile, the performance of music became more important in the church and in secular life. Church hymns, chanting, part singing, and organs with keyboards became features of church services, and the troubadours and minnesingers developed musical songs and stories for the secular entertainment and appreciation of the nobles and the common people.

The origins of the modern drama are found in the mystery plays of the church, which were originally dramatizations presented for the people on holy days. Gradually a complete cycle of plays was organized in the vernacular, all on Biblical themes from the Old and New Testaments, showing the story of man from the creation to doomsday. Gradually, from the twelfth century onward, the guilds and other laymen began to present such plays, and consequently their character changed somewhat to include humor and horseplay.

The supreme achievement of the Middle Ages in the field of the arts, however, is the development of the Gothic cathedral, which was a feature of the twelfth and thirteenth centuries, especially in France, England, and Germany. In its ribbed vaults, flying buttresses, pointed arches, and vertical lines the Gothic cathedral gives a feeling of aspiration toward the unattainable that is foreign to the quiet, restrained, and restful beauty of the Greek temple. By closely articulating the decorative effects of color, painting, and sculpture with the construction of the edifice the cathedrals are able to evoke the religious emotions suitable to worship through their soaring lines and the diffused light, vague shadows, and blended colors produced by their stained-glass windows.

Perhaps more than any other medieval manifestation the Gothic cathedral represents a combination of the religious and secular interests of life. The cathedrals were community as well as religious enterprises. The workmen of the guilds and the town authorities took pride in their cathedrals as community achievements; the guilds put in their own windows, set up their own altars, and used the cathedral for town meetings as well as religious services. Humor even crept into the work in out-of-the-way corners, as the stonemasons expressed a playful imagination in their carving of the gargoyles and poked fun at other churches, at other towns, and even at the clergy. In general, the Gothic cathedral demonstrates a high quality of craftsmanship and engineering ability as well as daring, ingenuity, and energy in the use of materials and available resources. In many respects it is the truest expression of the medieval spirit.

CHAPTER VII

EDUCATION IN THE MIDDLE AGES

ORGANIZATION AND CONTROL OF EDUCATIONAL INSTITUTIONS

Just as some of the earlier misestimates of the culture of the Middle Ages have been corrected by newer historical investigations, so must some of the earlier judgments on medieval education be revised. It has often been thought, for example, that education virtually disappeared in the Early Middle Ages, but now we know that there was an essential continuity of education following the decline of the Roman Empire and that despite a decrease in educational facilities there were many schools that continued uninterruptedly. It is true that the evidence is rather meager, but it seems clear that schools not only continued to exist but became much more widespread in the Later Middle Ages than often has been recognized. Another misestimate is that all schools in the Middle Ages were conducted by the church. It now is evident that secular schools and lay teachers continued to operate, especially in Italy.

Secular Control of Schools

Continuity of secular education. In Italy the currents of Roman life continued without complete interruption despite the long period of invasions and disasters that beset the Roman Empire from the fifth to the seventh or eighth century. Especially important for education was the fact that town life remained stronger in Italy than in any other part of western Europe. The process of Latinizing and Romanizing the new peoples who swept into Italy continued apace, slower in some periods and swifter in others. One of the principal means of assimilation of the Germanic tribes was the existence of the secular schools that had been sponsored by the later Roman emperors and the Roman towns. The Ostrogothic king, Theodoric, took steps to reestablish the town schools during his reign, and the Lombard kings and nobles did likewise as soon as conditions were a little more settled after the disruptions caused by their coming.

In the sixth century the secular schools were still at work. Although the level of instruction in Italian schools was doubtless very low in the seventh and eighth centuries, the desire for knowledge of grammar,

medicine, and law was always present. The uninterrupted existence of secular schools was apparent in most of the principal towns of Italy from the eighth century to the Later Middle Ages. These secular schools, conducted both by private teachers and by public teachers supported by the towns, did not give religious instruction but emphasized grammar (including classical literature), rhetoric (especially the dictamen), law, and medicine.

Despite the intellectually low level of much of this instruction the desire for these schools and the instruction given originated not in religious feelings but in a wish for whatever intellectual and practical advantage such studies could afford. The fact that such scholars as Paul the Deacon and Peter of Pisa could be called from Italy to the court of Charlemagne in the ninth century shows that instruction in the classics continued in Italy. Salerno was mentioned as a center for medical study as early as the ninth century, and the Emperor Lothaire I in 825 published a decree naming eight or nine Italian cities as places eligible for the establishment of higher schools to which scholars from their surrounding districts could go.

Although the evidence is sparse, there is reason for believing that some schools also continued to exist during the Early Middle Ages in northern Europe. Certainly the secular and druid schools of Ireland were for long maintained alongside the religious schools. In France the schools at Chartres probably had their origins in druid schools established by the Celts and persisted until refounded and stimulated by Charlemagne in the late eighth and early ninth centuries. Although there is not much direct evidence, the inference is that there was much more continuity of education in the Early Middle Ages than was formerly supposed. By the tenth century and following, the evidence is much clearer that fairly widespread secular education existed in many of the Italian towns. Gerbert sent to Italy for ancient manuscripts that he knew could be obtained there; in 1028 a chaplain for Emperor Conrad II contrasted the ignorance of Germans with Italy where "the entire youth is sent to sweat in the schools"; and Bishop Otto of Freising made a similar contrast between the Germans and Italians of his day in the middle of the twelfth century.

Town control. In Italian towns the presumption is that schools were maintained throughout the Middle Ages by municipal authorities. The study of grammar, rhetoric, law, and medicine had not died out in the Italian cities, and the continuous existence of these cities as centers of trade and commerce and intellectual activity makes it probable that these subjects, constantly useful to the merchants and scholars of Italy, were widely taught. The reconquest of parts of Italy by the Byzantine Empire meant that the continuity of Greek learning in the schools of

Italy was ensured and aided the early attention to medicine at Salerno, for example. When the early struggles of the Italian cities to achieve independence from the feudal nobles began, the towns turned to their schools for the study of law as well as for the groundwork of instruction in grammar and rhetoric that was necessary for such study.

With the acceleration of trade in the tenth and eleventh centuries, attention to secular learning increased. Villani's *Chronicle* estimates that by the middle of the thirteenth century there were between 8,000 and 10,000 children learning to read in the schools of Florence; there were also six schools in which 1,000 to 1,200 children were learning arithmetic; and there were four advanced schools where 550 or 600 children were learning grammar and rhetoric. This surely must mean that schools had existed for a long time in Florence. Likewise, before 1250 in Siena several masters were employed by the republic to give instruction in grammar, medicine, and law in an effort to rival the schools at Bologna and Padua. The estimate has also been made that in this period there were some 70 teachers of reading in Milan, along with 8 teachers of grammar. The inference is thus that many of the Italian cities were rivaling each other in providing schools under the control of the city authorities.

The movement for town control of schools took place somewhat later in northern Europe, just as the growth of the cities themselves occurred later. In Germany, for example, in the thirteenth century, many towns were taking steps to establish schools under the control of town authorities. Among these were Cologne, Munich, Lübeck, Breslau, Trier, Hamburg, Hanover, and Dresden. Similar steps were being taken in the Netherlands and to a lesser degree in France. In general, these schools were religious in aim and Latin in content and represented not so much an effort to establish secular instruction as simply to exert civil control over religious schools. The continuity of secular schools was not nearly so clear in northern Europe as it was in Italy, but nevertheless the growth of interest in town control of education reflected the growing economic and political power of the middle classes in medieval life.

Royal control. The most notable of the efforts by kings and emperors to establish and control schools under their jurisdiction was that of Charlemagne, whose political attempts to establish a strong centralized government were paralleled by his interest in extending education. In addition to his capitularies on political matters Charlemagne issued many decrees on religious and educational affairs. He required the clergy to improve their ability to read and write and to raise the level of their scholarship in general so that they could write good letters, be able to calculate the date of Easter, and know the grounds of their faith. He thus required schools for teaching reading to be established

where they were lacking. Abbots and priests were to be examined in respect to their educational attainments by their bishops, and corrupt manuscripts were to be corrected in monastery scriptoria. In response to this stimulus, Bishop Theodolphus of Orléans ordered his priests to see that schools were provided in every town or on every feudal manor where children might learn to read and write without payment of a fee.

In addition to this general stimulation of education, Charlemagne revived the palace school at his court, which had apparently been in existence from the time of Charles Martel, and called Alcuin from York in England to be its head. The school apparently was attended by the family of Charlemagne and other nobility of the court, adults as well as children, including Charlemagne himself on occasion. He also summoned from Ireland, Spain, and Italy as well as from England other scholars to aid in preparing a learned clergy and officialdom for church and state. In general, the efforts of Charlemagne loom large when compared with those of earlier and later times; and although he was not interested in education for all, he recognized it as a potent force for maintaining the Empire. Despite weak successors, civil war, and invasion, learning and schools never sank as low after the time of Charlemagne as they had been before his time.

Under Louis the Pious the Irish scholar Clement was called to head the palace school. Under Charles the Bald, who ruled the western part of the Empire, the greatest scholar of his time, Johannes Scotus Erigena, conducted the palace school. Under this stimulus a provincial church council meeting in Paris in 824 decreed that bishops should become more attentive to fostering schools in their dioceses so that church scholars might know better the grounds of their faith. At the same time Lothaire I, who ruled the central and Italian part of the Empire, issued his decree, already mentioned, for the establishment of higher schools in several Italian cities. Imperial stimulus again had effect, for Pope Eugenius II saw to it that a church council translated Lothaire's decree into practice by directing the bishops to establish schools in their parishes and dioceses for the teaching of grammar, the liberal arts, and religious doctrine.

Meanwhile, in the German part of the Empire, the scholar Rabanus Maurus was establishing monasteries and schools so extensively that he has been called the "preceptor of Germany" in the Middle Ages. When Otto the Great revived the concept of a unified Holy Roman Empire in the late tenth century, he installed his younger brother Bruno as virtual head of all the schools in the Empire. Bruno made the palace the intellectual center, much as Alcuin had done; he stimulated learning in the monasteries and gathered together the best scholars and collected the finest manuscripts he could find. The interest of emperors in educa-

tion was certainly not directed at the ordinary people, but it existed intermittently throughout the Middle Ages.

In England, royal interest in education was spasmodic, but considerable progress was made by Alfred the Great in the latter part of the ninth century. In addition to his interest in learning and scholarship, already mentioned, Alfred established a palace school at his court for the sons of the nobility, decreed that sons of the wealthy should attend school until they were fifteen years of age, and brought to England many scholars from the Continent. Under the leadership of St. Dunstan, schools were established in the churches, as well as in monasteries, in order to foster and improve learning among the priesthood, for St. Dunstan did not feel that the monasteries alone could attain the goal of learning set by Alfred. In the eleventh century William the Conqueror appointed Lanfranc archbishop of Canterbury, and St. Anselm became his successor. Both were patrons of learning in the monasteries and cathedral schools and helped to consolidate Norman institutions and ideals in England.

Among other rulers who sponsored education and scholarship the most outstanding in the Later Middle Ages was Frederick II. At his court in Sicily, the streams of Arabic, Greek, and Norman cultures joined with the Italian. Sicily thus became an important center for the translation of manuscripts and the gathering of scholars eminent in medicine as well as in the liberal arts.

In general, secular authorities were active in sponsoring education, especially in the Early Middle Ages. To be sure, they operated through the clergy. When kings gathered scholars about them, the scholars were always clerics; and when kings ordered schools to be established, the schools were established in monasteries or churches or cathedrals (with the exception of the palace schools themselves). The fact remains that the kings and emperors did occasionally urge forward the clergy and did stimulate educational activity in the church. However, the direct control of most schools was in the hands of the clergy; and as the political power of the Carolingian emperors declined in the ninth and tenth centuries, the Pope and the church councils began to take more and more independent action toward the encouragement of schools and education.

Church Control of Schools

The interest of the church in education, especially for the prospective clergy, continued to increase throughout the Middle Ages. For example, the council of Toledo in Spain in 531 prescribed that boys destined for the clergy should be instructed in the cathedral schools under the supervision of the bishop. A hundred years later another council at Toledo

elaborated similar arrangements. However, the most important steps taken by the church in the establishment of schools during the Early Middle Ages were represented by the monastic schools. The Benedictine and the Irish monasteries, which between them covered most of western Europe and the British Isles, soon came to have schools as a regular part of their arrangements.

From the ninth century on, the monastic schools seem to have included instruction for boys going into the secular priesthood and for nonclerics (*externi*) as well as for those who were to become monks (*oblati*). Famous monastic schools appeared at Monte Cassino and Bobbio in Italy, Reichenau and St. Gallen in Switzerland, Fulda in Germany, and Fleury, Tours, Cluny, Bec, and Corbie in France. The monastic schools dominated the educational scene of Europe from the sixth to the eleventh century. Then, with the growth of town life and the rise in importance of the cathedrals located in the towns, they began to give way to the cathedral schools, which rose to prominence in the eleventh and twelfth centuries, soon in their turn to be overshadowed by the universities in the thirteenth century.

The obligation of parish churches and cathedral churches to maintain schools was set forth time after time by church councils and by the Pope. Some of these statements that were prompted by kings and emperors have already been mentioned in the foregoing section. Then, as the church itself became more powerful, it began to take independent action. A council held in Rome in 853 decreed that elementary instruction should be given in all parishes and that schools for instruction in the liberal arts should be established in all cathedrals. In 855 a council at Valens supported this view. In 908 the bishop of Modena in appointing a new priest put as his first duty the task of maintaining a school and educating the boys under his jurisdiction. The Third Lateran Council in 1179 decreed that every cathedral church should have a master assigned not only to teach boys who wished to become clerics but also to teach without fee poor children whose parents could not afford to pay for the instruction. These and other ordinances show that the church took some steps to provide free instruction for the needy.

Thus, a wide range of schools was maintained by the various agencies of the church in the Middle Ages. The parish churches in the towns or on the manors provided elementary instruction in reading, writing, and music through their parish or song schools. The monasteries, collegiate churches, and cathedrals provided not only song schools for elementary instruction but also secondary and higher instruction in the seven liberal arts, medicine, law, and theology. To be sure, not all monasteries, parish churches, or cathedrals gave all of this instruction all of the time. The fact that so many church councils, popes, and

bishops on so many different occasions issued orders for increased attention to schools doubtless means that the earlier injunctions had been neglected and that new pressure had to be exerted upon a reluctant clergy. Nevertheless, the evidence of the *intent* of the church is clear.

Private Control of Schools

In the Later Middle Ages there is evidence that individuals and groups began to establish schools that were not directly responsible either to public authorities or to the church. The most important of these were the chantry schools and the guild schools. A chantry school was most likely to be established by a wealthy person who wished to endow a foundation where a priest might chant masses for the salvation of his soul after his death. At first, the teaching function of the chantry foundation may have been more or less incidental to the work of the priest, who usually gathered some boys together to form a choir for the Latin services. Later, the school often became an integral or even principal part of the original foundation. Likewise, as the guilds became important factors in town life, they often appointed a priest to teach the children of the guild members in a guild Latin school. The guild schools should not be identified with the vocational preparation provided in the apprenticeship system to be described later. Although these chantry and guild schools were not yet very common, nevertheless a pattern of private control of education was started in the Later Middle Ages that was to become most important, especially in England, during the Renaissance and Reformation periods.

The Control of Higher Education

As has already been mentioned, the principal agencies of higher education in the Early Middle Ages were the monastic schools and the cathedral schools. In general, the monastic schools were predominant until about the eleventh century, when the cathedral schools began to surpass them in importance. As the numbers of students in the cathedral schools began to increase, the actual teaching function and direct control of the school were often delegated by the bishop to a church official known as the chancellor. The chain of authority was from bishop to chancellor. Gradually, the most important power delegated to the chancellor was the right to issue the teaching license (*licentia docendi*) to qualified students within the diocese. As certain of the cathedral schools grew to still greater prominence, the Pope often gave to the chancellor through the bishop the right to issue a license to teach anywhere (*licentia docendi ubique*). This meant that some cathedral schools gained authority beyond their diocese.

Certain of these cathedral schools acquired the name *studium generale*, a place of general study, so called because it attracted students from a wide area and its license to teach was recognized beyond its own jurisdiction. By 1100 the most flourishing of such schools were those at Chartres, which was particularly famous for the study of grammar and literature, Paris, for logic and theology, Bologna, for law, and Salerno, for medicine.

Origin of the university type of organization. In the twelfth century, as the number of teachers and students increased at some of these schools, the teachers began to follow a typical medieval pattern of group action and organize themselves into a guild, or *universitas*. The university was designed particularly to protect the teachers against the chancellor, the bishop, the king, or anyone else who tried to bring them under control. Likewise, the students often organized themselves into guilds for protection against the teachers, the townspeople, and each other. These early student "universities" usually followed nationality lines according to the region or country from which the students came. This was a natural development that students have always followed when they traveled far from their homes and looked to others with a similar background for friendship, comradeship, and mutual protection. Thus, the student guilds at Paris represented the "nations" of France, Picardy, Normandy, and England; at Bologna they represented Rome, Lombardy, Tuscany, and the regions beyond the Alps.

The term *universitas* was originally applied simply to any group of people who were organized in a guild for common purposes, but gradually it began to be applied specifically more and more to universities of faculties and students. As the masters and students organized themselves into guilds and corporate organizations, the cathedral school became a university. The process of transformation was gradual, and no exact date can be given for this transition in the case of the universities that appeared in the later twelfth and thirteenth centuries. The typical guilds of teachers were the faculties of liberal arts, law, medicine, and theology. Not all medieval universities had all these faculties, and some universities were more famous for one faculty than for another, for example, Paris for theology and Bologna for law.

University of Paris. Since the greatest of the universities in the Middle Ages was the University of Paris, a short description of its rise to power may reveal some of the factors at work in the general university movement. By the eleventh century the number of students in Paris had increased enormously, for they were attracted to the schools of Notre Dame Cathedral, the collegiate church of St. Geneviève, and the abbey of St. Victor. Guillaume de Champeaux had attracted many students to Notre Dame, and then Abélard far overshadowed his former

teacher and colleagues in his drawing power, which he displayed at various times at St. Victor and St. Geneviève as well as at Notre Dame. There is evidence that before the end of the twelfth century the masters of these schools had organized themselves into guilds of arts, law, medicine, and theology because they felt themselves fettered by the control of the chancellors of Notre Dame and St. Geneviève, who, they considered, were less learned than the teachers.

The masters wanted to control their own affairs, appoint new members to their group as other guilds did, and issue the licenses to teach. They turned to anyone who would give them help in their struggles to achieve greater autonomy. Thus, on occasion they turned to the king for help against the townspeople, and Louis VII gave them the right to strike whenever teachers or students were molested by the town. In the frequent riots that broke out between town and gown, the university came to be recognized as exempt from the civil courts, and students and faculty gained the right to be tried by ecclesiastical or university courts. If the king issued orders to the university, as Philip Augustus did, the faculty turned to the Pope for help. If the chancellor required obedience of them, as the chancellor of Notre Dame did, they again turned to the Pope or struck. Whenever the faculty felt that restraints were intolerable, they would strike and leave the city or threaten to strike; and as the students often joined the faculty, the university could often bring the king, the town, or the church to their terms.

In their disputes with the chancellor the faculty won from Pope Innocent III in 1212 recognition of their association, and Innocent ordered the chancellor to wait for recommendations from the faculty before appointing new professors. Again in 1229 the faculty appealed to the Pope over the chancellor's head, and in 1231 the papal bull of Pope Gregory IX became the main fortification of the autonomy of the university. Thus, the Papacy showed itself willing to overrule its own appointed officials and to protect the university in order to gain more direct control over it. In general, the faculty was willing to accept this help; for the Pope was far away, whereas the chancellor was on the ground and was therefore thought to be more immediately dangerous to them.

Soon, however, the faculty began to have its troubles with the Pope. When the Dominican friars began to teach in the University of Paris, they often sided with the Pope rather than with the other professors. In the years 1252 to 1257 there was a series of struggles with the mendicant friars. When the rest of the professors went on strike, the Dominicans kept on teaching and attracting students. The Pope supported the Dominicans, insisted that they remain at work, and the strike was broken, but the university had shown that it was hard to control.

Gradually, the arts faculty became the largest and strongest of the faculties, and by the end of the thirteenth century the rector, who was the executive and disciplinary head of the arts faculty, came to be recognized as the head of the whole University of Paris. Increasingly Paris was recognized as *the* great medieval university, and the saying was "Italy has the Papacy; Germany has the Empire; and France has the University of Paris; all is well."

One of the significant results of the struggle for autonomy at the University of Paris was the growing recognition of the faculty as the full legal body of the university. The faculty had corporate existence, could set the curriculum, issue the license to teach, confer the degrees, and appoint its own members. In fact, the very idea of a university in its origins was this corporate existence of the faculty. In more recent times, however, it is interesting to note that the legal corporation for universities in the United States is not the faculty but the board of trustees or board of regents, which has full legal powers. These non-resident boards now usually appoint the professors to the faculty and have taken over the function of corporate existence to such an extent that the faculties today have little legal status but are employees of the boards of trustees. Many problems of academic freedom have arisen from this change in the character of university organization and control in the past six or seven hundred years.

Other medieval universities. In Italy the most famous university of the thirteenth century was at Bologna, where the university type of organization developed out of a cathedral school of arts, a monastic school of law, and a municipal school of rhetoric. An interesting but not very influential characteristic of Bologna was the power of the student guilds to exert control over the affairs of the university. The rector of the student guilds was recognized as the head of the university, and the professors were obliged to take an oath of obedience to the student rector and abide by the regulations of the student guilds concerning the length and content of lectures, the time of beginning and ending lectures, and the length of the academic term. Other universities that achieved some status in Italy during the thirteenth century were at Siena, Padua, Naples (founded by Frederick II), and Rome (founded by the Pope).

In England the universities at Oxford and Cambridge took form during the Middle Ages and remained the only English universities for several centuries thereafter. Having achieved a university type of faculty organization by 1167 or 1168, Oxford was modeled in large part upon the faculties of Paris but was not so closely supervised by the Papacy or by the local bishop. Cambridge was established later, when a group of masters became dissatisfied and moved from Oxford in 1209.

This practice of secession from one university to another accounts for the establishment of many universities throughout Europe.

By the end of the thirteenth century the only other universities in France outside of Paris were those at Montpellier and Toulouse. Montpellier was especially noted for its work in medicine; and Toulouse was founded by the Papacy in the 1230's as a means of combating heresy in southern France. Universities appeared in Spain at Salamanca and Seville and in Portugal at Lisbon before the end of the thirteenth century. In the fourteenth and fifteenth centuries the university movement spread to Germany, Central Europe, the Low Countries, the Scandinavian countries, and Scotland. More than 75 universities were known by the end of the fifteenth century.

Aristocratic Nature of Medieval Education

Viewed from the perspective of modern times, with our stress upon widespread public education, the opportunity for education among the ordinary people of the Middle Ages seems limited indeed. In general, the modern estimate is that medieval education was highly aristocratic as compared with education in our own day. Yet, viewed from the standpoint of the medieval period itself, the opportunity should probably not be discounted too heavily. Even though the church was not widely concerned with giving every child a chance for education, it is apparent that some steps were taken to provide free education for poor children. To be sure, this was a charity conception of education, for if parents had the wherewithal they were expected to pay for the education of their children. Yet the fact that free education existed at all is not to be taken too lightly.

Furthermore, recent investigations seem to point to the conclusion that great numbers of children were attending school in the larger towns of Italy, France, Germany, and England before the end of the thirteenth century. There is even reason to believe that educational opportunity was more widespread in the thirteenth century than in the fourteenth or fifteenth century. This can perhaps be accounted for by the widespread disruptions in the fourteenth and fifteenth centuries caused by the Black Death, peasants' revolts, wars, and attacks upon the church. There seems to be some evidence, too, that at least a few opportunities for schooling for girls outside of the convents and courts began to appear late in the thirteenth century.

When all these exceptions have been noted, however, the generalization still seems to hold that compared with Roman Imperial times before the Middle Ages and compared with Reformation times of the sixteenth and seventeenth centuries the opportunity for education in Europe was probably very slight. A distinction should doubtless be made here be-

tween southern Europe and northern Europe. Under the Roman Empire, schools were more usual in Italy than they were in France, Germany, and England, which were outposts of the Empire. The Middle Ages was a time when those regions of northern and western Europe were being Latinized by the church, the kings, and the schools. The foundations for educational opportunity were just being laid in the Middle Ages in France, Germany, and England. Given the intellectual and religious outlook of the church in those times, it is only natural that the beginnings of education in western Europe were largely aristocratic and selective in character.

Status of the Teaching Profession

In general, most of the teachers in the elementary schools of the Middle Ages were clerics, minor church officials, or priests. The status of teachers was thus similar to that of the lower levels of the clergy. There were also lay teachers, especially in the towns of Italy, who made their living instructing children by private contract with parents. But the great weight of instruction was carried by monks in the monasteries or priests in their parishes, who taught school as a part of their regular duties. In this respect, at the lower levels of instruction, there is little evidence of a special or separate profession of teaching whose principal task was education. The clergy did the teaching primarily because this was the only group in society with sufficient education to carry out the teaching function, and education was not an end in itself so much as a means of fulfilling the religious duties of the church. Thus, teaching in general was truly a handmaiden of the church as far as elementary instruction was concerned.

At the higher levels of instruction, however, the situation changed during the Later Middle Ages. Advanced instruction in the liberal arts, law, medicine, and theology soon became the principal business of certain monks in the monasteries and of the chancellor or scholasticus in the cathedral schools. Here the process of change from instruction as incidental to the other duties of the clergy to instruction as a principal duty was a gradual one. By the eleventh and twelfth centuries the job of the scholasticus and his staff in the cathedral schools began to be a full-time one. Many such workers became noted as scholars and teachers rather than as clergymen. Such, for example, were Bernard of Chartres, John of Salisbury, Guillaume de Champeaux, and Abélard. However, the real transition to an independent profession of teaching took place in the process of university organization.

In the thirteenth century a career in university life became so important that it began to challenge a career in church or state as an outlet for the energies of able young men. It is noteworthy that virtually all

the important thinkers and writers and intellectual leaders in the thirteenth century were university-trained men or professors. The universities were the molders of the intellectual life of the times to a degree perhaps greater than at any time since, for there were few scholars outside the universities. The status of the teaching profession in the universities was very high and surrounded with privileges, exemptions, and immunities. University professors never gained the great wealth of the noble or great churchman, but they enjoyed much better than average living and held a high place in public respect and social esteem. At Oxford and Cambridge they gained special representation in Parliament, and as a group they were often sought out to decide important questions of heresy or theology or political disputes.

In the days when university professors were dealing with intellectual and religious problems that concerned the life of the people outside of their halls, they held an important place as leaders in the social scheme. After the Middle Ages, however, when they continued to deal with these same problems long after the political, economic, and intellectual concerns of the world outside had begun to change, the universities were left behind in their ivory towers. The history of higher education since the thirteenth century is replete with examples of universities that lagged behind society, satisfied with contemplation of the "pure" knowledge of the past and opposed to "practical" knowledge of the present.

Nonschool Agencies of Education

Chivalrous education of the knight. As the complicated system of personal relationships associated with feudalism grew up among the nobility in the Early Middle Ages, it was only natural that methods of preparing the young noble for assuming these obligations should be devised. The ideals of chivalry became the guide for the education and conduct of the noble class. Chivalry was a system based on the usages appropriate to the warfare, religion, and courtesy. The ideal of warfare demanded training for strength, courage, endurance, and skill in fighting on horseback. The church contributed ideals of mercy, honor, generosity to the fallen foe, protection for the weak, and loyalty to the Christian religion and higher motives for fighting. The social graces and manners developed at the courts of the nobles added the notion of *courtoisie*, or courtesy. The ideal of chivalry was thus a man of action, a soldier, courtier, and Christian gentleman, who had appropriate reverence for the church as well as loyalty to his overlord and his feudal obligations.

Although there were no special schools for training knights, chivalric education became fairly standardized and systematized. It was usually accomplished at the court of the overlord and included three fairly well

defined stages of training. The first stage was designed for the younger boy from the ages of seven or eight to fourteen or fifteen; during this time he acted as page or valet at the court of his father's overlord. As a page, he was attached particularly to the ladies of the court, whom he served and from whom in general he learned about the life of the court. If he were lucky, he might learn how to practice the courtly graces and courtesies, how to sing and play a musical instrument, how to take part in religious ceremonies, and perhaps how to read and write in the vernacular.

From the ages of fourteen or fifteen to about twenty-one years the boy acted as a squire, or attendant, for the overlord or one of the knights of the court, helping with the armor and arms, caring for the horses, and ready to assist in war, tournament, or chase. He learned to ride and fight and in general was inducted into the methods of warfare of the day. He also perhaps improved his social accomplishments by singing, playing, reciting and composing verses, dancing, and entering into the games and story-telling activities of the times. He also learned about the coats of arms and devices of heraldry, which had developed out of the need to distinguish friend or foe among the mail-clad knights on the battlefield. Likewise, he learned the rules of the chase and the methods of hunting with birds and dogs as a part of the social life and amusements of the court.

At the age of twenty-one or so the young man was ceremonially inducted into knighthood by the overlord and church officials upon proof of his worth on the field of battle or tournament. As he was dubbed knight, he was dedicated to service to his overlord and to the church and took the oaths of allegiance to both. The ritual might include a symbolic bath, prayer, or vigorous exercise as a ceremonial means of purifying himself of sins. Hence arose the Knights of the Bath and other knightly orders.

The young knight was now ready to enter upon his duties at the court and undertake his obligations as a vassal, in return for which he might receive some land or other means of subsistence as a fief. His training perhaps had included some instruction concerning feudal laws and how to manage a manor and estate, or perhaps he had simply gained experience by watching others deal with the workmen and serfs. In any case he was sure to acquire the accepted attitudes of superiority to the common people and the art of commanding others of lower position. The whole training was a class education for entrance into the aristocracy.

Girls of the noble class were also inducted into adult life by learning the religious faith and ceremonies, the social accomplishments of dancing and perhaps singing and instrumental music, and the accepted practices of courtesy. A young girl might also receive instruction in sew-

ing, weaving, and handcraft and might perhaps learn how to manage the household servants, for the wife was likely to be in charge of the manor while her husband was off to the wars or the tournaments. The young girl perhaps also learned to read and write in order to be able to conduct her correspondence and perhaps even to keep books if occasion required. She was trained in these duties either at home or in a convent, and then in her teens she was likely to be assigned to the overlord's court to learn the social graces of the chivalrous life and to act as a lady in waiting or attendant upon the mistress of the court until marriage. In general, the education of both girls and boys of the noble classes was not bookish but a direct and practical induction through experience.

Vocational education of the craftsman. In the Early Middle Ages, as in most preindustrial societies, the most common methods of vocational education were simply by direct imitation and handing down of skills from father to son. Before the tenth and eleventh centuries these skills were more or less crude and primitive, but they must have been relatively high among some workmen, for monasteries, churches, and castles were built, crops were raised, and clothes and materials were made into finished products. With the rise of towns and the acceleration of trade in the eleventh and twelfth centuries the skills of artisans and farmers improved noticeably, and by the time of the emergence of the medieval guilds in the twelfth and thirteenth centuries the methods of vocational education were also refined. Since the primary purpose of the guilds was to protect the craft in respect to the quality of products and to keep down overproduction, many rules developed concerning entrance into the craft. One of the most important nonschool agencies of education was the system of apprenticeship that developed as a means of preparing youth for their occupation.

Like the education for knighthood and roughly equivalent in purpose to the training of page, squire, and knight, the education of the artisan also had three stages, apprentice, journeyman, and master. As an apprentice the boy was assigned to a master craftsman, often on the basis of a written contract, or indenture, which bound both parties to keep certain obligations. The master promised to teach the boy the skills of the trade, look after his morals and religion, give him his keep and perhaps a small stipend, and teach him whatever reading and writing might be needed to carry on the trade. In most cases the reading and writing were probably negligible. In return, the boy promised to work hard and faithfully, keep the secrets of the trade, and not cause the master too much trouble. The period of apprenticeship varied greatly and might last anywhere from 3 to 10 or 11 years. The boys might start any time after seven or eight years of age.

The next stage was that of training as journeyman, during which the young man might travel about, working as a day laborer for different masters in their shops or might work in a larger shop for a longer period of time for a wage to be set by the guild. Then, if he proved his worth and could present a masterpiece showing that he had mastered the skills of the trade, he would be admitted to the guild as a full-fledged member, with appropriate ceremony. As a master craftsman, he could set up his own shop and hire journeymen and take on apprentices.

To be sure, the foregoing description is a generalization from many varying practices that changed from time to time and from place to place. For example, in the Later Middle Ages and in the Renaissance, the journeymen found it harder and harder to gain admittance to the guilds as master workmen. The regulations became more strict, and this meant that more and more workers remained journeymen all their lives, working for others rather than for themselves.

/ EDUCATIONAL AIMS, CURRICULUM, AND METHODS

In general, medieval education in the schools was highly bookish in character. In an age when books were so scarce as they were in the Early Middle Ages, it was only natural that they should be regarded with great respect and even reverence. Since the written word was the essence of authority, medieval education was based upon this authority. Submissiveness and obedience were qualities to be honored in the young, and the schools set out to instill these qualities in the pupils. Although many of the advanced scholars showed critical abilities, initiative, and originality, these were not qualities to be encouraged in students.

Many of the most popular textbooks of the Middle Ages were written during the decadent days of scholarship in the later period of the Roman Empire and contained little original material from the past. The digest, the compendium, and the manual in which the lore of the past was condensed, simplified, and made easy were the typical books for study. The Middle Ages represent the heyday of reliance upon the textbook. If a teacher had a textbook, he was lucky, and perhaps he knew little more than was in the textbook. Indeed, it might almost be said that the principal way by which a person could be identified as a teacher was by the fact that he had a textbook or had memorized one. The principal practical aim of education was the ability to read Latin, and the principal method was to memorize the required books. The whole educational process was largely a passing on of the content of textbooks from teacher to student.

Elementary and Secondary Instruction

Education as conducted in the monastic schools, parish or song schools, and elementary branches of cathedral schools revolved around the ability to read Latin and take part in the church services. The minimum amount of learning needed to become a priest was the ability to read Latin and conduct the prayers, chants, hymns, and religious ceremonies of the church services. Latin syllables, Latin words, and the rules of Latin grammar were taught from the elementary textbooks such as that of Donatus or Cato or from the Latin psalter or prayer-book. Often, no doubt, the material was committed to memory by the boys without understanding of the meaning of the words. Writing may sometimes have been learned too, but it was not universally taught. Music took the form of instruction in the accents of words and training in singing or chanting the phrases. The finger elements of arithmetic and some simple fundamental operations may also have been taught. Since there were few books, the boys had to learn mainly by memorizing and drill, accompanied by considerable corporal punishment and severe discipline.

- In general, the most common method of teaching was probably as follows: The teacher read from his book and dictated the words to the pupil, who repeated the words aloud or perhaps copied them on a wax tablet. The pupil then memorized the words by repetition; if he had a wax tablet or slate, he memorized the words before he wiped it clean
- for the next day's lesson. Apparently, either little attempt was made to explain the meaning of the words, or the attempt was made without using objects or pictures. However, a good teacher perhaps used vernacular words to explain the Latin words as soon as the phrase, hymn, or chant was memorized.

It seems clear that this elementary instruction in letters and secondary instruction in grammar were more or less carefully distinguished from the more advanced study of the liberal arts during the Later Middle Ages, for by that time elementary and secondary instruction were given by different teachers from those who taught the liberal arts. In the Early Middle Ages in the monasteries there was probably little differentiation, except of course that the boys needed to learn the elements of reading Latin before they could go on to the study of the liberal arts. Schools for the most part were not institutionalized in the modern sense and indeed perhaps should not be called "schools"; rather, a monk or a priest would teach a few boys informally at more or less regular hours. In the days when there was no literature or fund of knowledge recorded in the vernacular and when all knowledge handed down by the church was in Latin, learning to read and write Latin had a most practical

value. Without it one could not broaden his horizon beyond his own little niche. Nevertheless, the Latin of the church was a foreign language to the Germanic and Celtic peoples of western Europe. It was therefore a difficult task to whip into shape countless generations of youth who resisted the learning of Latin in the schools.

Fortunately for the church and unfortunately for the youth, the religious outlook on human nature was such that the doctrine of original sin made it seem natural for youth to be stubborn and rebellious and good for them to be beaten. Bodily punishment was a means of discipline that was justified as good for the mind and for the soul. It is likely that western Europe would not have been Latinized if these doctrines had not been insisted upon by the church, but it was hard on the pupils. Such methods could doubtless be justified when they had practical values; but when in later centuries the vernaculars became scholarly carriers of knowledge, there was no longer educational justification for keeping alive the fiction of mental and physical discipline. Resistance to the doctrine of corporal punishment and discipline for their own sake appeared as early as the fifteenth century, but little headway was made in changing educational practices until the eighteenth and nineteenth centuries.

Advanced Instruction: The Seven Liberal Arts

Prior to the rise of the universities in the twelfth and thirteenth centuries, the principal content of higher education was the seven liberal arts as described earlier. In general, the trivium (grammar, rhetoric, and logic) became preparatory to the more advanced studies of the quadrivium (arithmetic, geometry, astronomy, and music). Beyond these came the still more advanced and professional studies of law, medicine, and theology. During the Later Middle Ages instruction in grammar became preparatory to study in the universities and provided the beginnings of secondary education necessary for advanced study of grammar and the other liberal arts in the universities.

Grammar at Chartres. The highest point in the medieval teaching of grammar was reached at the cathedral school of Chartres during the twelfth century. In grammar Donatus and Priscian were still the basis for study, but the study of grammar was by no means confined to these authors. Students and masters alike studied many of the classical authors and wrote compositions for development of style. The methods, ideas, and attitudes of the schools of Chartres can best be illustrated by a consideration of two of the noted teachers.

Bernard of Chartres was an eminent teacher who represented the reverent dependence on the ancients that was a main feature of Chartres. Learning for Bernard was the fruit of long and patient thought,

Careful study of worthy models, and a tranquil life free from distractions. He considered grammar to be the basis of all culture and protested against the hurried and unintelligent drill based on textbooks. He assigned portions of the works of classical authors to be memorized; he had his students write daily compositions with particular attention to content, style, and quality; and he corrected carefully his students' prose and verse, criticizing their knowledge and taste. Bernard was mindful of Christian piety, but he loved the classics so much that he believed that grammar in its broadest sense should be studied for itself.

John of Salisbury, bishop of Chartres when he died in 1180, wrote a pure, gracious Latin. Cicero especially influenced his style, philosophy, attitude toward life, and writings, which ranged from letters, history, and politics to poetry, education, and philosophy. John also knew the Bible and the fathers, but he believed the classics were worthy of study for their own sake. He saw no essential antagonism between the secular Romans and Christians, but he fused them into a rounded Christian Humanism. He bitterly attacked those whom he termed "Cornificians," who would offer students a "get-learning-quick" method of study so that they could cut their academic course short and proceed to the practical business of living.

John advanced nearly all the arguments that have ever been made in favor of the Humanistic training as opposed to practical or synthetic education. True education, he considered, required a thorough grounding in the classics in order to obtain knowledge and develop a mature and critical judgment, discriminating taste, and the complete understanding necessary to the contemplative mind. Rhetoric or logic he thought to be of little value and even harmful unless based on wisdom gained through patient study of the humanities. John of Salisbury's own writings give evidence of an amazingly wide knowledge of classical authors. There is considerable evidence that John was not an exception at Chartres, for the Latin that was written in the twelfth century seems to have been of higher literary quality than that of the thirteenth.

Abélard at Paris. As Chartres was famous for its teaching of grammar in the twelfth century, so was Paris famous for its teaching of logic; and preeminent among the teachers at Paris was Abélard. So famous did he become that he was instrumental in turning the attention of students from the humanities to the delights of dialectics. A brilliant lecturer, a skillful dialectician, a witty classroom entertainer, Abélard was bold, lucid, original, and sharply controversial. He was always fresh and stimulating, and therefore he was just the sort of teacher to attract youthful attention at a time when the usual method of teaching was dry lecturing, eternal glossing of materials, reciting of propositions and counterpropositions, citing of authorities, and abstruse disputation. His

remarkable range of reading permitted him to illustrate his lectures and enliven them with concrete examples instead of abstract speculation. By his brilliance, criticism, and pugnacity Abélard fired interest and enthusiasm until students flocked to his schools in Paris by the hundreds and even thousands.

When he was forced to leave Paris, his hold upon his students was so great that they followed him wherever he went, seeking him out in the woods and forcing him to repeated returns to teaching throughout his life. It was characteristic of Abélard that he aroused either violent dislike or equally devoted loyalty and adherence. Great teacher as he was, as well as shrewd and fearless critic, nevertheless, for profound insight, constructive power, and mastery of synthesis, he could not be compared with Johannes Scotus Erigena, St. Anselm, or St. Thomas Aquinas. His poetry and love songs, however, exhibit emotional qualities of versatility and genius that the works of these others do not.

Origin of the prescribed curriculum. With the rise of the university system, an expansion of the liberal-arts curriculum followed. To the seven liberal arts were gradually added the newly discovered works of Aristotle on the physical sciences ("natural philosophy"), ethics and politics ("moral philosophy"), and metaphysics ("mental philosophy"). For example, the faculty of theology at the University of Paris was slow to accept the scientific works of Aristotle; and, because they did not seem to fit in with church doctrines, the Papacy made many efforts to keep them out of the university faculties. The arts faculty, however, was much more receptive to Aristotle's works and set out to digest and assimilate them. In this way, the arts faculty made itself more vital and attractive to students. As Aristotle gradually became "respectable" and as his works were reconciled with church doctrine, particularly through the efforts of Albertus Magnus and St. Thomas Aquinas, the philosophical and scientific studies of Aristotle came to be prescribed along with the traditional seven liberal arts in the arts curriculum. Whence came the power to require these and only these studies for a liberal education?

The origin of prescription seems to be in the church's practice of licensing its teachers. Since all teachers in the Middle Ages were clerics and since it was felt that all clerics should be trained properly in religious orthodoxy as well as in the tools of scholarship, the church found it expedient to control entrance into the teaching profession. This was done by granting a license to teach (*licentia docendi*), the condition for receiving which was the successful completion of the course in the liberal arts. Before the rise of the university system, the *licentia* was granted by the bishop or chancellor of the cathedral schools; but, with the spread of university organization, the license, or degree, came to

be granted by those who were already professors in the faculty of arts. The first complete prescribed curriculum in arts seems to have been laid down at the University of Paris in 1215 by the papal legate, Robert de Courçon.

Graduation represented the conferring of the right to teach upon students who had attended lectures for a certain period of time, defended a thesis, and passed a more or less difficult examination. The degrees thus granted varied somewhat from university to university and from one period to another. Generally speaking, they became fairly standardized by the end of the medieval period, and they followed not only the earlier custom of granting the license to teach but also were influenced by the guild organization. When the student had finished the study of the elementary liberal arts, he was granted the baccalaureate degree (bachelor of arts, or B.A.), which indicated that he was ready to be an assistant teacher. He then studied the higher liberal arts and Aristotelian philosophy for some 3 years more, at the conclusion of which he was granted the final license to teach and became a master teacher (master of arts, or M.A.). To win the master's degree the student usually was required to prepare a thesis and defend it against disputants in much the same manner that a journeyman presented his masterpiece to the guild members as proof of his qualification to become a master workman.

The specific requirements in the English universities, which were directly the progenitors of the American college, were somewhat as follows: At Oxford, the student followed a 4-year course of study under a tutor for his B.A. degree; a first examination included grammar and arithmetic, and a second included rhetoric, logic, and probably music. Three years more of study beyond the B.A. were required for the M.A. degree, during which the student read prescribed books in geometry, astronomy, and Aristotelian "philosophy" (physical science, ethics, and metaphysics). The arts course of Cambridge as well as of Oxford thus included the prescription of the old seven liberal arts and the philosophical studies of Aristotle. The conception of the liberal arts had expanded as Aristotle had been accepted into the arts curriculum. Remnants of all these studies were found in the early American colleges.

The significant thing here is the fact that our traditional notion of a prescribed curriculum grew up because the church desired its priests and teachers to be orthodox in belief and educated in the literary and philosophical studies inherited from Greco-Roman culture. Then, in later centuries, the notion gradually spread that these same liberal arts should be prescribed not only for teachers and professional men but also for all who would be considered liberally educated apart from their pro-

fession or occupation. Therefore the B.A. degree came in time to denote a liberal education.

It might be noted here that there are other aspects of modern universities than the traditional prescribed curriculum that serve to link modern university organization closely with medieval institutions. We are peculiarly the inheritors of the medieval tendency to organize and institutionalize. For example, the grouping of studies into separate faculties, the requiring of students to confine themselves largely to one faculty, the allotment of a definite period of years to the student's course, the giving of examinations, and the granting of degrees or titles with formality and ceremony are all distinctly medieval in origin. The most important educational characteristic of the medieval university institution, however, was its tendency to mark out a definite line of study based upon the authority of the church and to prescribe only certain books to be read by the students. Modern faculties have retained for themselves the prerogatives of prescription that the medieval church originated.

Professional Instruction: Law, Medicine, and Theology

In the Early Middle Ages some of the monastic schools and cathedral schools often taught elements of law, medicine, and theology along with the liberal arts, without much differentiation. For example, at Chartres before the twelfth century law and theology were taught incidentally whenever material on these subjects was found in the writings of the various church fathers; and medical knowledge was found in excerpts from Hippocrates and Galen, and in the compendia of St. Augustine, Cassiodorus, Isidore, and others. However, from the twelfth century on, the study of law, medicine, and theology gradually became differentiated and recognized as separate, advanced professional studies; and the liberal arts came to be looked upon as preparatory to these more advanced studies. With the development of university organization separate faculties of law, medicine, and theology were created in many of the universities. An indication of this development may be found in the examples of certain institutions in which these studies were paramount.

Law at Bologna and elsewhere. The revival of interest in legal studies at Bologna in Italy paralleled somewhat the acceleration of intellectual interest that marked the growth of grammar at Chartres and logic at Paris, but in Italy this revival took a somewhat different turn. Whereas education was largely a function of monasteries and cathedrals in the North, the church schools had no monopoly in Italy, and the revival had great effect among the secular teachers. Scholars and masters were often laymen interested in civil careers and were thus not

automatically clerics or priests, nor were they subject to any greater ecclesiastical supervision than were other laymen. In Italy the subject matter of the schools emphasized the seven liberal arts; but grammar was not taught as a literary and Humanistic study as at Chartres, nor was logic taught as a dialectical exercise as at Paris. Rather, grammar and rhetoric were looked upon as a preparatory, practical preparation for the study of law, medicine, and dictamen. The reasons for this doubtless lay in the different cultural conditions that obtained in Italy; municipal life instead of feudalism, political rather than theological and religious interests, the struggles of the cities for independence, and the investiture struggles between pope and emperor.

The Roman law had remained strong in the use and tradition of the Lombard towns of northern Italy from the later days of the Roman Empire. Justinian's *Corpus Juris Civilis* had been handed down by the lawyer class, and elementary law had often been taught wherever instruction was given in the schools of liberal arts. Law was often thought of as a branch of rhetoric; and schools at Rome, Pavia, and Ravenna had claims to fame for the study of law in the eleventh century long before Bologna gained preeminence. The study of law permeated much of the instruction in Italian schools; Bologna simply became the outstanding example among many cities where the tradition was strong.

Bologna became well known as a *studium generale* for the arts in the eleventh century, and it long remained famous as such, but the reputation of its legal studies came to overshadow all else at the time of the investiture struggle in the twelfth century. The legal revival was accelerated in the early twelfth century by Irnerius, whose fame attracted students to Bologna much as Abélard's attracted them to Paris. Under the leadership of Irnerius a greater attention was given to the close technical and professional study of the *Corpus Juris Civilis* for its practical usefulness rather than as a literary or philosophical treatment. An organized and systematic study of the whole *Corpus Juris Civilis* became the required curriculum of an ordinary legal education, and the differentiation of the law from a general education in the liberal arts accompanied the growth of a new class of students who were older, more mature, and more independent than elsewhere.

Those who favored the emperor's side in the investiture struggle found support for it in the Roman civil law. So the supporters of the Papacy had to look for better justification of the Pope's claims. This they found in 1142 in the great work of Gratian, who did for canon law almost what Justinian's code did for the civil law. He codified and systematized authorities from the Bible, writings of the church fathers, canons of the church councils, letters and decrees of the popes, edicts of the Roman emperors, Justinian's laws, capitularies of the Frankish and

Lombard kings, and the customs of the church. Gratian arrived at the position that ecclesiastical law was superior to secular law and that therefore the authority of the church was paramount. Gratian's *Decretum* had a very wide vogue as a textbook in law schools until it became the fundamental authority for the study of the canon law, and it has never been entirely superseded. From this time on Bologna became famous for its canon law as well as for its civil law, and the way was paved for the rise of the University of Bologna.

A unique development in the study of law occurred in England, where the professional study of law was carried on not in the universities but in the Inns of Court. In the Later Middle Ages the lawyers of England belonged to guilds, known as the "Inns of Court," which were located in houses near the king's courts in London. Normally, a young man would live at one of the Inns after his study at a secondary school or university and learn the profession much as an apprentice did in other types of guilds. This meant that legal education was in secular hands in England, and the vernacular soon became the language of study, whereas in the Continental universities Latin long remained the language of the professions as well as of the liberal arts. The education of the Inns was a class education open only to those who could afford such an education and emphasizing the social accomplishments of music and dancing as well as the study and practice of the law.

Medicine at Salerno. The revival in medicine during the eleventh and twelfth centuries was fully as marked as that in grammar, logic, and law. For more than two centuries Salerno, as a school of medicine in southern Italy, rivaled in academic fame the schools at Chartres, Paris, and Bologna. The origins of the school at Salerno are obscure, but there are traces of the study and practice of medicine at Salerno as far back as the ninth century. By the tenth century it was famous for the skill of its physicians, and by the middle of the eleventh century its celebrity in Europe was established. Since Salerno was purely a medical school, it never developed other faculties and did not arrive at the completed university type of organization. It was, nevertheless, important, for it revealed how the medical traditions of Greece and Rome had continued in southern Italy much as the legal tradition had persisted in northern Italy.

In the eleventh century the courts of Salerno acknowledged the authority of the Eastern emperors and were in constant communication with Constantinople. The concentration of medical science and its revival at Salerno were thus a counterpart of the survival of the Greek language in southern Italy. Medical study was further stimulated by the fact that Salerno had long been noted as a health resort with a mild climate and mineral springs. In addition to the Greek and Roman

medical science of Hippocrates, Galen, and others, Arabic science began to influence Salerno through the efforts of such scholars as Constantinus Africanus, who translated many Greek, Arabic, and Hebrew medical books into Latin. In 1231 Frederick II of Sicily tried to limit the practice of medicine to those who had received a royal license from the masters at Salerno, but this measure was unsuccessful, for Salerno was beginning to lose its vitality. By the beginning of the fourteenth century its decline was complete, and Arabic medical science had been disseminated among the medical faculties in the universities of Europe. In general, however, the faculty of medicine in medieval universities had the least practical influence upon the life of the people and its usefulness did not measure up to that of law or theology.

Theology at Paris. The twelfth and thirteenth centuries saw a great upswing in the study of theology that paralleled and then came to surpass the other studies of higher and professional learning in the Middle Ages. In the Early Middle Ages theology, of course, had been an important study in the monastic and cathedral schools, but in the hands of the Augustinian theologians it had been closely interwoven with other studies rather than separated from them. In the twelfth century, Peter the Lombard made great strides in organizing and systematizing theology. In his book called the *Sentences* he used the method of Abélard, stating the propositions, lining up the authorities on both sides, and then giving his own version of the correct position. Peter the Lombard's *Sentences* became an enormously important textbook in the study of theology for centuries thereafter.

In the thirteenth century the introduction of Aristotelian science greatly influenced the faculties of arts and theology. The arts faculty at Paris, for example, eagerly welcomed this new scientific material, and it was now the turn of the quadrivium to enjoy huge popularity, for all else was subordinated to Aristotle's scientific and mathematical philosophy. Many of the arts professors were attracted by the interpretations of Aristotle made by the Islamic scholar Averroes. These Averroists who were strict literalists and unbending Aristotelians began to dominate the arts faculty, but the church became alarmed at their doctrines of the eternity of the world and the indestructibility of matter. If the world were eternal, God could not have created it; and if matter were indestructible, it would rank with the soul as immortal.

Therefore, the first move of the church was to condemn Aristotle's *Physics* in 1209 and his *Metaphysics* in 1215, outlawing them from instruction in the university. Its second move was to assimilate Aristotle and correct his errors. Outstanding in their efforts to accomplish this task were Alexander of Hales, Albertus Magnus, and St. Thomas Aquinas, all of whom taught at one time or another at the University

of Paris. By the time St. Thomas Aquinas had completed his work and the Dominicans had taken up the cudgels for Thomism, Aristotle was installed permanently within Catholic doctrine. Theology had become the keystone of all university study, the highest of the high, with all other studies subordinate to it. The faculty of theology at Paris and elsewhere ultimately became virtually an arbiter in matters theological, deciding disputes, defining heresy, and on occasion even correcting the theology of the Pope himself.

University Life

Colleges. When a boy or young man went to the university in the Middle Ages, he simply sought out the master under whom he wished to study, signed his name on that master's roll, and paid him his fees directly. The student then lodged where he could and acquired the clerical gown as a sign that he was a student and thus a minor cleric. Since many of the students apparently began as mere boys in their teens, the question of lodging often became a problem, especially for the poorer students. Gradually, philanthropy came to their rescue, and rich benefactors provided buildings where they could live, or the friars opened their houses to take them in.

A college in its origin was thus simply a rooming and boarding house for young and indigent scholars. As would be natural, the matter of discipline soon became a problem, and some universities began to assign masters to these colleges to keep order. Then, in the centuries following the Middle Ages, these masters, or tutors, in the colleges began to take on teaching functions, until at length the colleges became the most important teaching agencies of the English universities at Oxford and Cambridge. Most of the early American colleges were modeled upon the college ideal of the English universities.

The methods of instruction at the medieval universities were principally in the form of lectures, repetitions, and disputations. The lecture consisted primarily of reading aloud from the textbook by the master and then his commenting upon the material line by line. These commentaries when written out were called glosses. The lecturing might be very complicated as one master elaborated certain passages by referring to the glosses of a whole series of scholars who had commented upon each other. Lectures given in the morning by the professors were known as ordinary and those given in the afternoon by assistants or advanced students were extraordinary. The repetition was basically a review and perhaps recitation of the materials of the lectures and textbooks, and the disputation was a formal elaboration by students who argued, defended, and attacked certain theses according to established rules for argumentation.

In a loose sense the three stages in the process of acquiring a university degree were roughly equivalent to those of training for knighthood and the guilds. The young student at work on the elements of the liberal arts (in many cases the trivium of grammar, rhetoric, and logic) was comparable to the page and to the apprentice. When the student had finished the rudiments, he became a bachelor, or baccalaureate, and then went on to higher studies and perhaps assisted with the teaching; he was then comparable to the squire and to the journeyman. When he finally "won his spurs," presented his masterpiece, and defended his thesis by passing his examinations, he was admitted to full standing in the guild of scholars and "dubbed" master of arts in a commencement ceremony reminiscent of the entrance into knighthood and the master craftsman's guild. He was then a master in his field of the liberal arts as the knight was a master of warfare and the craftsman was a master of his trade.

The life of the student was doubtless an exhilarating one, especially on the "extracurricular" side. As antidotes for complicated lectures and texts, students engaged in all sorts of activities that were frowned upon by the university authorities, who made little effort to provide acceptable physical or social activities for students outside of the intellectual atmosphere of the classroom. The regulations listing prohibited pastimes reveal what the students enjoyed doing. Fighting and brawling were perhaps the most popular; and regulations were also issued against cock fights, tennis, gambling, singing and playing musical instruments, and the keeping of such pets as parrots, hawks, monkeys, bears, wolves, and dogs. The singing of student songs, storytelling, and drinking apparently took much time. These were natural activities in institutions where organized sports and physical education, scientific investigations of nature, and social intercourse were not admitted to standing along with intellectual training, mental discipline, and the study of books.

Theory of Education

It is probably significant that medieval writers made few statements on the theory of education in comparison with earlier and later periods in history. In general, the outlook on education of the Middle Ages must be deduced from the materials put into textbooks for study rather than from special treatises devoted to the theory of the aims, content, and methods of education. We can gain these insights from the compendia of Cassiodorus, Isidore, and others on the liberal arts. We know what they expected of students, namely, the mastery of the textbooks. We can tell what different scholars considered important for students to learn and the methods they considered desirable, for example, the Humanistic study of grammar required by John of Salisbury, the dia-

lectical study of logic by Abélard, the practical competence in dictamen by the Bolognese rhetoricians, and similarly for law, medicine, and theology as developed by Irnerius, Gratian, and St. Thomas Aquinas. The high regard in which Aristotle was held is indicated by the Averroists, Albertus Magnus, and St. Thomas Aquinas.

We know something also of the attacks upon Aristotelian dominance of education from the statements of Roger Bacon. According to Friar Bacon, the education of his day had four great defects: its utter dependence upon the authority of Aristotle; the reliance upon established custom; its giving of undue weight to popular opinion; and the concealment of real ignorance by the pretensions of knowledge. His remedies were a more thorough study of languages and literature, science and mathematics, and the methods and spirit of experimental inquiry.

One of the most interesting exceptions to the generalization about a lack of educational treatises in the Middle Ages is an anonymous work discovered recently in the archives of the Vatican.¹ In this manuscript the anonymous author proposes that the boy begin his study of grammar at the age of seven years and continue grammar as the principal study along with some arithmetic and music until he is fourteen. For the next 7 years he should study rhetoric, logic, and astronomy, until the age of twenty-one; then for another 7 years he should study geometry, metaphysics, and natural philosophy until he reaches twenty-eight; he may then go on to the professional study of theology or law. As will be noted, the seven liberal arts, with the addition of Aristotelian science and philosophy, had become the staples of higher education in the liberal arts by the end of the thirteenth century.

Interesting, too, is the author's concern for the physical health and intellectual abilities of the younger boys from seven to fourteen. The health of the boys should be maintained by protection from the cold; those with physical defects and contagious diseases should be barred from school; and all should have a recess for play, sports, and games as a means of recreation in preparation for further study. The personality, or *complexio*, of different students should be carefully considered, as well as their capacity for learning, and different adaptations in instruction should be made for the sprightly and the subdued, for the bright, normal, and dull.

Despite the modern tone to this document it is questionable just how much these admonitions were put into actual practice. Doubtless some good teachers always considered such factors in their day-to-day teaching, but it is also significant that so few such statements have come

¹ See LYNN THORNDIKE, "Elementary and Secondary Education in the Middle Ages," *Speculum*, 15:405-406 (October, 1940).

down to us from the Middle Ages. Acquisition of subject matter was the overpowering concern of medieval educators, along with the desire to instill proper religious attitudes among the younger students. These two concerns were the greatest legacies of the medieval heritage to education.

The concern for the development of the individual and for his preparation to engage in the society in which he would live outside of the church was notable by its absence. Notable too was the fact that, although such concerns were paramount in the educational theory of the Greeks and of Cicero and Quintilian in Roman times, they were overshadowed by the religious concerns of the church in the Middle Ages. When the dominant influence of the church was lessened in the Renaissance, we find again an upswing of interest in the individual and in the secular aspects of society with the appearance of the educational theory of the educational reformers of the Renaissance and Reformation.

CHAPTER VIII

THE RENAISSANCE IN EUROPE

The term "Renaissance" has come into historical usage principally in application to the period represented by the fourteenth, fifteenth, and early sixteenth centuries. Some historians have heretofore looked upon the Renaissance as a time of sudden rebirth of the classical spirit and have attributed most of its cultural changes to the revival of interest in classical learning. More recently, however, it has become evident that there was much more to the Renaissance than the revival of classical learning and that many of the institutional and intellectual trends had their origins deep in the Middle Ages. Historical ages usually show a certain amount of continuity with the past, but some periods reveal more rapid change and development than do others. This was the case in the Renaissance, when the general efflorescence of life represented a speeding up of political, economic, and religious change as well as intellectual and artistic change. If there is a single key to the explanation of the Renaissance phenomena, it can probably be found in the growing secularism of the times, which can be seen in the complicated interweaving of nearly all aspects of Renaissance life. Secularism had already become a strong force in the Middle Ages, but the clue to the Renaissance is that secularism came to dominate Renaissance culture to a greater degree than in the Middle Ages.

THE INSTITUTIONS MEN LIVED BY

Political Institutions

In general, the striking thing about political development in the Renaissance is the continued and rapid growth of the centralized political authority of the monarchies in France and England. In this process the medieval political traditions of feudalism were giving way to the modern institutions of the national state. In contrast, however, political developments in Germany and Italy reflected a much more decentralized and confused situation. The earlier rise of France and England to national sovereignty gave them a head start in the world

scene and enabled them to acquire great colonial empires, whereas Germany and Italy were not strong enough to achieve such power until their efforts to do so in the World Wars of the twentieth century.

France. At the beginning of the Renaissance in France, King Philip IV (the Fair) made notable efforts to assert his sovereign power, as against the feudal theory that he was merely overlord to the nobles. He gathered about him professional lawyers trained at his court, loyal to him and antagonistic to the feudal nobles and the Papacy. With their help he crushed the Knights Templars, a religious and military order, and in this way struck a blow at the nobles and at the Pope, two of the powers that stood in the way of his effort to become supreme ruler of France. Philip IV also enlisted the middle classes on his side by giving them a voice in the States-General, which, however, served principally to provide money, taxes, and support to consolidate his power.

Philip IV's main foreign enemy was King Edward I of England, who was in theory his vassal. The troubles with England took the form of a long series of conflicts known as the Hundred Years' War (1337 to 1453). In general, these wars were fought because the kings of France and England were trying to establish their own powers of centralized control and extend the lands over which they could govern. The French kings did not want the English to control lands on the Continent, and the English kings were trying to throw off the yoke of allegiance they theoretically owed as vassals to the French overlord. All the fighting took place on the Continent, and as a result large parts of French soil were devastated.

By the end of the Hundred Years' War the English threat was postponed, the nobles and the States-General had lost power, and the king emerged as the absolute ruler. Louis XI was able to incorporate Burgundy and Charles VIII Brittany, and the form of modern France was thus taking shape. The king was now able to levy his taxes directly upon the nobles and the middle classes without the intermediaries that had been set up under feudalism. Charles VIII became so strong that he turned his eyes toward Italy and invaded Naples in 1494, thus opening up a series of wars against Italy. Finally, with the reign of Francis I (1515 to 1547) France became one of the great powers in Europe, and the way was cleared for the further development of royal power and the intellectual as well as political and economic changes that characterized the Renaissance in France.

England. A similar process of centralization of political power was occurring in England and at an even more rapid rate. Edward I was even more quickly successful than Philip the Fair in establishing his royal machinery at the expense of the nobles and in setting up courts

of law responsible directly to himself. The decisions of the king's judges began to give the form to the English common law that it was to maintain for centuries. Thus the feudal laws and local customs began to be replaced by the common law as expressed by the king's courts. Likewise, Parliament gained constantly more power during the fourteenth century, and ultimately was able to force Richard II to abdicate in favor of Henry IV of Lancaster in 1399. By this time, the House of Commons had become separate from the House of Lords and had been able to gain the power of introducing legislation in return for granting money to the kings, money especially needed for the waging of the Hundred Years' War.

The House of Commons was made up of middle-class representatives from the cities and the landowning gentry from the rural sections. Thus, Parliament became more representative of the whole country at an earlier date than did the States-General in France. Furthermore, the common man felt himself more a part of the nation because he had taken part in the wars as a foot soldier, and a spirit of national consciousness was heightened, a trend further strengthened by the first Tudor king, Henry VII. Following him was Henry VIII, who personified the Renaissance life of England at its height, much as Francis I did in France. Both Henry VII and Henry VIII made rapid gains in further weakening the nobles and gaining the adherence of the merchant classes by aiding English commerce and industry.

The Holy Roman Empire. In contrast to the growing centralization of political authority in France and England the German, Slavic, and Magyar states of central and eastern Europe were marked by confusion, rivalries, and constant changes of boundaries and peoples. Much of this region of Europe was nominally a part of the Holy Roman Empire, but the term implied little of the authority usually associated with the word "empire." There were dozens of states, large and small, ruled by family dynasties and joined together only by more or less loosely held loyalties and responsibilities, all supposedly owing allegiance to the emperor. The crown was bandied from family to family and contended for by the princes who could get the necessary political or military support. The emperor was chosen by a College of Electors, which consisted for a long time of seven electors, three church and four secular rulers, namely, the archbishops of Mainz, Cologne, and Trier and the count of the Rhenish Palatinate, the margrave of Brandenburg, the duke of Saxony, and the king of Bohemia. In addition to these states, the Empire was made up of the strong states of Austria, Bavaria, and Hesse as well as many other independent secular states, independent ecclesiastical states, and free imperial cities such as Frankfurt, Augsburg, Nuremberg, and Strasbourg. Although the emperors usually tried to

maintain and extend their powers, the College of Electors and the many coalitions that were formed among the other states were able to keep alive during most of the Renaissance period the forces of particularism against the divine dynastic ambitions of the Hohenstaufens and the Hapsburgs.

Much of the warfare of the early Renaissance period was in the form of German expansion to the east. In the thirteenth century the Teutonic Knights, a religious and military order, had carried on a series of crusades into the Baltic countries until by 1350 they controlled the shore of the Baltic from Danzig to St. Petersburg (Leningrad). Emperor Charles IV also won virtual control over Austria, Hungary, Bohemia, and southeastern Europe. By the end of the fourteenth century, however, Germanic expansion was stopped for a time at the hands of Bohemians, Poles, Swiss, and French. In the fifteenth century the Empire regained its losses under the Austrian Hapsburgs, especially Maximilian I, whose canny marriage arrangements gave to Emperor Charles V control of Bohemia, Hungary, and Spain (which included the Low Countries) as well as Germany, Austria, and part of Italy. In the sixteenth century, under Charles V, the Empire was at its height but began to show the effects of the blows of the Lutheran Reformation at home and the attacks by Sweden from the north, France from the west, and the Turks from the east.

Other states. During the Renaissance, Poland grew strong, defeated the Teutonic Knights in the fifteenth century, and annexed part of East Prussia. Denmark, Norway, and Sweden were united under the Danish monarchy in the late fourteenth century; in the sixteenth century Sweden broke away from Denmark and soon dominated the Baltic. The Russian Slavs, who had long had a Byzantine culture and religion, were conquered by the Mongol Tartars in the thirteenth century, but by the fifteenth century the prince of Moscow had thrown off the Tartars and established the beginnings of the modern Russian state. The Ottoman Turks had conquered Asia Minor in the thirteenth century, invaded Europe in the fourteenth century, conquered Constantinople in 1453 to end the Byzantine Empire, and also made their way into Greece, Albania, Croatia, Serbia, Rumania, Bulgaria, and Hungary and as far north as Vienna, where they were met by Charles V in the sixteenth century. Suleiman the Magnificent, Turkish sultan of this period, was one of the most powerful leaders of the time and could be said to rank as one of the "Big Four" of the day, along with Emperor Charles V, Francis I of France, and Henry VIII of England. The league of the Swiss cantons was made into an effective confederation by the beginning of the sixteenth century. Spain became a powerful factor in European politics late in the fifteenth century, when the principal Spanish states were

united by the marriage of Ferdinand and Isabella, who then began to build Spain into a strong national state, which became even stronger when Charles V became king of Spain as well as Holy Roman emperor.

Italian states. Politically, Italy was made up of a number of independent city-states. There was thus no central political authority to weld the various cities into a nation as was being done in France, England, and Spain. The Italian cities had begun to win their independence from the feudal nobles during a long process of legal and military conflicts in the Later Middle Ages, and this process was accelerated in the fourteenth century through the use of foot soldiers whose guns could not be withstood by the armored knights. The use of gunpowder acquired probably from China and the development of professional soldiers (*condottieri*) combined to rout the nobles, who thereafter came down out of their castles and began to live in the cities and strive with the wealthy merchants for political power.

The cities in which the merchant guilds were strong were able to set up republican forms of government, as in Venice, Florence, and elsewhere. In other cities the nobles were for long able to maintain power, as in the duchies of Milan and Mantua and the kingdoms of Naples and Sicily. A catalogue of Italian cities reveals the great political variety. In the Renaissance period one thinks, not of Italy, but rather of Genoa, Ferrara, Siena, Pisa, Bologna, Padua, Perugia, Assisi, and others. For nearly the whole of the fourteenth and fifteenth centuries and until the middle of the sixteenth century the Italian cities exerted great leadership in economic and cultural affairs, but the eventual decline of this leadership was forecast by the invasion by France in 1494, after which Italy became a battleground for the French, Spanish, and Germans. Italy, of course, had great political influence through the Papacy, but the political power of the Pope was declining as a result of the attacks from many secular sources, to be described shortly. Within Italy itself the Pope's political power gradually came to be confined to the Papal States in central Italy.

Economic and Social Institutions

The upswing in commerce and trade that had begun in the twelfth and thirteenth centuries was accelerated during the Renaissance. In general, the cities of Italy and of northern Germany were the leaders in the early Renaissance, but the centers were beginning to shift to the Atlantic trade routes by the sixteenth century as the discoveries of Vasco da Gama, Columbus, and Magellan opened up new horizons for commerce across the ocean seas rather than simply across the Mediterranean, the Baltic, and the North Sea. This process is illustrated by the Hanseatic League. Organized in the thirteenth century under the

leadership of Hamburg and Lübeck, the league included by 1350 some 90 free cities on the North Sea and Baltic Sea. It maintained a monopoly over trade in these areas, controlled shipbuilding, built lighthouses, maintained channels, and devised some of the earliest known examples of armed merchant ships and the convoy system. It began to decline by the late fifteenth century, and its difficulties were greatly increased through the sixteenth and seventeenth centuries as the Thirty Years' War, trade with America, and nationalistic economies eventually broke it up.

The growing political importance of the middle classes in the English Parliament and French States-General, as well as their dominance of the Italian cities, has already been mentioned. This trend reflected the increasing wealth and economic power of the merchant groups, known as burghers or *bourgeoisie*, who congregated in the cities. The same process was taking place in Germany, where rich trading families were appearing. One of the most influential of these was the Fugger family of Augsburg, who began as weavers, then became dealers in cloth, established trading stores all over Europe, obtained metal and mining rights, loaned money to the princes and the Hapsburg emperors, and acted as bankers for the Papacy. By the opening of the sixteenth century the middle class displayed great extravagance and arrogance, delighting in highly decorated furniture and voluminous and costly clothing, and expressing itself in much gluttony and drunkenness.

In nearly every country of Europe the Renaissance period was marked by the outbreak of violent and bloody revolts of the peasants. In the middle of the fourteenth century the overcrowded and unsanitary conditions of town life, the famines, and the Black Death killed off vast numbers of persons. As a result of this depopulation, there was a greater demand than ever for workers to till the fields and work in the cities; this helped to hasten the freedom of the serfs and the commutation of their feudal ties. Stirred to action by their conditions and the possibility of improvement, the peasants revolted in England in the fourteenth century. By the end of the fifteenth century most English serfs had obtained their freedom and had become tenant farmers, hired laborers, independent yeomen, or city workingmen. In France in the same period the revolt of the *Jacquerie* reflected the same process. In Germany the peasants' revolts, which occurred somewhat later, were even more bloody than in England or France.

In 1476 Hans Bohm began to denounce to thousands of German peasants their unsatisfactory condition. He attacked the clergy, denounced taxes and tithes, and urged that if all men are brothers they should share alike the fruits of the earth. Bohm was arrested and burned, but his preaching led to the Bundschuh Insurrections of 1492 to 1525.

The *Bundschuh*, which was the crude type of shoe worn by the peasants, became the symbol of revolt. The ideal was a Christian communism, with the specific aim to get back the use of forests and streams that had been open for generations to the peasants but that had begun to be inclosed and fenced off by the towns and nobility for private use.

Although the economic status of the peasants was actually better in the late fifteenth century than it had been, the discontent was greater because of the obvious inequalities in the distribution of wealth as revealed by the extravagant display of the wealthy merchant classes and because of the injustices of the system of inclosure. Discontent was heightened by the bad harvests and rising prices of this period, but the nobles were not disposed to be generous, nor was the church. Even Luther, who was preaching the equality of men in the sight of God, exhorted the nobility to put down the peasants' revolts with all the means at their disposal. The age of the common man was not yet.

Religious Institutions

Decline of the Papacy and the conciliar movement. Attacks upon the Papacy by the kings grew in intensity during the Renaissance; the most outstanding of these involved Pope Boniface VIII and King Philip IV of France. Boniface issued a series of papal bulls in which he exhorted his clergy not to pay taxes to the kings, denied the right of secular courts to try the clergy, issued a proclamation of his complete sovereignty over all secular rulers, and specifically declared Philip IV deposed. Philip IV in turn sent four agents to Italy (including William of Nogaret), who raised a small army, captured Boniface, and demanded that he quit the Papacy. Boniface died shortly thereafter, and the result of the whole episode was a terrible fall in the prestige of the Papacy.

For some seventy years afterward the popes were Frenchmen, they were controlled by France, and the seat of authority was located at Avignon in France. During this so-called "Babylonian captivity" of the Papacy (1309 to 1377) rival Italian popes at Rome made claims to legitimacy, and the church was further torn by the Great Schism as these contestants carried on their claims and counterclaims. Finally some of the cardinals called the Council of Pisa in 1409 to heal the schism. This heralded the so-called "conciliar movement" in the church. At the Council of Constance in 1414 the principle was specifically asserted that the council rather than the Pope was supreme in church matters. Many more church councils were held, all of which revealed an attempt to establish authority over the Pope and make him a sort of spokesman for a constitutional body rather than the supreme authority in the church. As these nationalistic movements increased, the councils became in effect a league of strong national churches rather than

representatives of one international church. Finally, in the sixteenth century the national churches became strong enough to break away entirely under the leadership of Luther, Calvin, and others. At that time the Pope won back his supremacy within the Roman Catholic Church, signalized at the Council of Trent.

Church abuses. By 1500 attacks upon the church were increasing and were being delivered from every direction. Not only were many of the secular rulers, kings, and emperors trying to extend their authority at the expense of the church, but the peasants were seething with discontent and the middle classes were restless under the taxes and tithes that were expected by the church. The cry was that the clergy were so incredibly worldly and rich that they neglected their religious duties. Other charges centered in the "sale of grace," whereby the church and the Papacy received a large income in return for such unauthorized practices as the appointment to church offices made in return for a fee (simony), expense accounts of papal inspectors levied upon local churches (procurations), permission sold in advance to do things ordinarily prohibited by the church (dispensations), exorbitant legal fees, and, above all, the sale of indulgences. Originally the way to atone for sin had been set up by the church in the sacrament of Penance as follows: The sinner who had repented of his sin confessed to a priest, who set the terms of penance, and gave absolution on the understanding that the penance would be performed. During the fourteenth century the idea grew up that indulgences could be given that would absolve the sinner of his sin without undergoing punishment or penance. It then became common for the indulgence to be granted for a fee. Whereas some popes and priests never countenanced such practices, the consciences of careless Christians were dulled as they were permitted to think that they could escape the consequences of sin without giving up the enjoyment of it. In these ways the church began to lose its hold on great numbers of people.

Forerunners of Protestantism. John Wycliffe, a teacher of theology and philosophy at Oxford in the fourteenth century, was one of the most effective of those who protested against the worldliness and abuses of the church and urged reforms in theology and practice. The most important of his ideas on religious reform are as follows: (1) Since each person is a direct vassal of God and holds his possessions by His grace, he should enjoy them only on condition that he render due service and loyalty to God. (2) The terms by which we enjoy these possessions are set forth in the Bible, and therefore everyone should have access to the Scriptures in order to know these terms. (3) It is the duty of the clergy to be pious, to live modest lives, and to give up worldly concerns; if

the clergy fail in these respects, it is the duty of the state to reform the church.

Acting upon these principles, Wycliffe attacked papal authority, urged the direct responsibility of the individual to God, and sponsored the translation of the Bible into English so that all could read it. His followers, known as the Lollards, followed his ideas with a petition to Parliament in 1395 to actuate a series of church reforms, but Parliament not only paid no attention to the petition but was induced to pass a law in 1401 for the burning of heretics. In 1408 the archbishop of Canterbury issued a series of decrees prohibiting the publication of Lollard books and the English translation of the Bible without the license of the bishop concerned. Wycliffe was apparently one of the first learned men to show the discrepancy between the Bible and the practices of the church and thus paved the way in idea for the Protestant reformers who were able to break away from the church a hundred and fifty years later.

Wycliffe's ideas were directly transferred to Bohemia through the followers of Anne of Bohemia, wife of Richard II, and the University of Prague became the center of a reform movement in Bohemia. Religious reforms were linked with a nationalist Bohemian movement under the leadership of John Huss, who launched a special protest against the sale of indulgences. He was summoned to the Council of Constance on charges of heresy and was given the promise of safe conduct by Emperor Sigismund; but the promise was retracted, and he was tried, condemned, and burned at the stake.

The Hussite movement, however, took on an even more nationalistic character and a more radical tone under the leadership of Ján Ziska and Andrew Procop. They advocated complete liberty in preaching, exclusion of priests from secular affairs and from holding property, and punishment of the clergy for all their misdemeanors. They gathered their military forces and repelled several German invasions of Bohemia in the early 1420's, but eventually the movement was defeated and the imperial authority reestablished. It was too soon for successful revolt from the Roman Church, but the forces were at work that ultimately led to the wars of the Protestant Reformation.

The stirrings of religious unrest were found also in Italy as revealed in the preaching of Savonarola, famous Dominican friar in Florence. Savonarola was a zealous reformer who brooded over the low state of morality and religion in Italy and forecast that Italy was doomed if a reformation did not occur. He became a powerful preacher against sin, lashing the practice of simony, the wealth of the church, and lax popes. He gained a strong grip on the lower classes by his inflammatory preaching and his prophecies of doom and destruction. He became asso-

ciated with the government of Florence in opposition to the Medici at the time of the invasion of Italy by Charles VIII of France, but his friendliness toward France and his accusations against Pope Alexander VI led the city government to try, torture, and hang him. Too much revolt against the church could not succeed in Italy any more than it could elsewhere in the fifteenth century.

THE IDEAS MEN LIVED BY

The Growth of Secularism in Renaissance Thought

The increasing emphasis upon the secular aspect of life can be seen in the development of Renaissance thought much as it can be seen in Renaissance political, economic, and religious institutions. This is not to say that the claims of the secular represented a sudden or abrupt change or that they came to dominate intellectual life. Rather, the secular trends already noticed as emerging in the Middle Ages were accelerated and made more prominent during the Renaissance.

Rights of the state against the church. Just as political institutions became more secular in practice, so did Renaissance thought begin to give more attention to man as a political, economic, and social being. One of the outstanding exponents of this viewpoint in the fourteenth century was Pierre DuBois, royal advocate to Philip IV of France, whose chief work is entitled *The Recovery of the Holy Land*. The main point of his argument is that the church should give up its secular ambitions and leave all matters of secular authority to the state. He does not criticize the religious functions of the church but insists that it drop its activities in respect to business, landed property, and war, so that the clergy may concentrate on religious interests. Establishment of perpetual peace is a major concern of DuBois, who envisages, not a world government, but rather a world religion headed by the Pope, who should call a world council in which the states will swear to maintain peace, substitute arbitration for war, and ship all warlike people to the Holy Land.

Another plea for world peace in the fourteenth century was made by Marsiglio of Padua, an Italian who became professor of arts and rector of the University of Paris. Marsiglio's *Defender of the Peace* takes a quite different position from that of DuBois. Marsiglio insists that the state is the true defender of the peace and that the church and, especially, the Pope are the enemies of peace. In his treatise, Marsiglio expresses the fundamentally democratic doctrine that the source of all coercive power is the sovereign people, who are the true legislators but who may delegate this power to a committee or to one individual. In thus stating the elective rather than the monarchical principle,

Marsiglio insists that the obligations of government apply to the ruler as well as to the ruled and that the ruler may be removed when he does not fulfill his obligations to the people.

Moreover, Marsiglio claims that the clergy should have no coercive power whatever. The Scriptures state all that is necessary for salvation, the clergy may interpret the Bible and define heresy, but all penalties and punishment are the province of the state, and heretics are not to be punished unless they are guilty of overt acts of treason or attempt to overthrow the state. In these ways Marsiglio elaborated the doctrine of the supremacy of the state in a widely defined area of secular affairs.

The principle of the political authority of the state was carried much further by Machiavelli in the late fifteenth century. Machiavelli's basic assumptions are that men are by nature evil, selfish, greedy, and self-seeking and that a good state is one which is conducive to the common welfare of its members. All states will decay because of the inherent nature of man, but the best way to hold back the process is to set up a state that has a basis of liberty, a religion to keep people within reasonable control, a native army, and an efficient executive. Machiavelli extols the *real politik* of a ruler who will refrain from nothing that will benefit the state. It is at this point in his book called *The Prince* that he defends an executive who will not hesitate to go back on his word, to shed blood, or to use all manner of ruthlessness if such acts benefit the state, as judged by the results. Despite his belief in a limited monarchy or republic as the best forms of the state, Machiavelli had lost his faith in the sovereignty of the people, and thus his very name became the symbol of ruthless and totalitarian government.

Rights of the people against the ruler. However, several other, albeit less influential, voices were raised to assert the principle that government should be based upon the consent of the people. In the fourteenth century Nicolas Oresme, writing on the theory of money, held that the king cannot alter the coinage without the consent of the governed. In his commentaries on Aristotle, Oresme argued that the community of citizens is free by nature and should never consent to tyranny. Nicolas of Cusa argued for constitutional government in which the strength of statutes depends upon consent and freedom of election is the proper basis of orderly government. In England the parliamentary cause was upheld by Sir John Fortescue, who preferred the English constitutional arrangements to the principles of the French monarchy or the Roman law.

Rights of the individual against authority. While the church and the state quarreled about whose authority should be supreme in the lives of men, there were some who began to assert the right of the individual

to throw off the restraints of all authority and to develop his own individuality as he sees fit. The spirit of individualism began to claim that the individual man should be loyal principally to himself and should develop his own personality in all its aspects, creative, artistic, emotional, and physical as well as intellectual. On its best side this spirit approached the ancient Greek doctrine of the development of the well-rounded personality; on its worst side, it laid claim to such freedom as amounted to license. In the lives of the nobility and newly rich merchant classes the spirit of individualism could and did easily lead to the throwing off of all restraint and to the indulgence of all tastes no matter where they might lead. An opportunity had arisen to swing to the opposite extreme from the medieval ideal of self-abnegation, asceticism, and discipline.

On its more positive side the ideal of individualism is expressed in such books as the *Courtier* by Castiglione, in which he describes the courtly gentleman of affairs who can fight, love, paint, compose poetry, and discuss the affairs of state with equal ease and effectiveness. Perhaps the best representative of the many-sided interests of the Renaissance was Leonardo da Vinci, who combined the achievements of the scientist, practical inventor, and artist. He seems to have been interested in virtually the whole range of human experience; and although thus perhaps his achievements in all fields are not supreme, his range is astonishing.

Rights of nature against the supernatural. The shift of the center of intellectual gravity from the religious and the divine to human experience revealed the shift in interest from the supernatural to the natural, from the spiritual interests of the other world to the natural interests of this world. Men began to study nature and natural phenomena as showing natural laws rather than a divine plan at work on earth. The beginnings of modern science began to take the form of such beliefs and assumptions as the following: a certainty that the secrets of nature could be revealed and that the progress of such knowledge was inevitable; a belief that "science" should mean what we can learn by looking at nature rather than a body of knowledge inherited from the past; and, finally, the development of a technique for obtaining such knowledge through the observation of nature, collection of facts, objective verification of the facts, use of mathematical formulas in the process, and the application of the results to nature.

The Renaissance did not produce developments in science that can be compared with those of the seventeenth or eighteenth century, but the groundwork was being laid, the methods formulated, and the restraints of religious dogmatism gradually weakened. The discovery of the Americas led to intellectual questioning of the established social forms

and the opening of new horizons through which the study of nature might reveal the fundamental nature of man as well as of things. Exploration and acquaintance with the primitive societies to be found in the Americas prompted interest in the "natural man" and the unspoiled "noble savage." Montaigne was struck with the fact that untutored savages with no ancient religion or "civilized" heritage could show such qualities as courage, honor, and integrity. The feeling grew that nature could produce a purer and better form of moral conduct than an over-sophisticated civilization could.

World View and Human Nature

Despite all the inroads made by secularism upon the medieval conceptions of the nature of the universe and man's relation to it, the dominant outlook concerning human destiny continued to be Christian theism. The challenge of the Renaissance thundered against the abuses of the church as an institution rather than against the basic foundation of Christian theology. The voice of criticism was rising, but science did not lay claim to the intellectual allegiance of men in any such degree as was achieved in later centuries. The movement, however, was under way in such writings as those of Copernicus, who formulated the heliocentric theory of the universe, though the implications of this revolutionary doctrine were not to be realized and championed for a long time. In general, the philosophical spokesmen of the Renaissance couched their writings in such a way that they kept within the general framework of Christianity.

With regard to the conceptions of human nature, there was considerable restiveness. The doctrine of original sin and the emphasis upon the inherent evil of human nature were beginning to be called into question. The spirit of naturalism began to say that human nature had qualities for potential goodness within itself. The example of aboriginal native Americans led some to stress the fact that primitive peoples could be good without the benefits of civilization and religion. The Renaissance murmurings against a pessimistic view of human nature formed the background for the clarion call of naturalism that was to be sounded by Rousseau and others in the eighteenth century. In general, however, Renaissance writers were content with urging the claims of human individuality and human creativeness to be achieved within the accepted religious framework. The accent upon the "human" in human nature led to indifference to or unconcern with the religious preoccupations of the Middle Ages but not to open revolt against the underlying conceptions.

Intelligence and Knowledge

With regard to the role of human intelligence in solving human problems and the methods to be followed in achieving knowledge, however, the revolt of the Renaissance thinkers was much more pronounced. In determining what knowledge was of most worth, the intellectual of the Renaissance was besieged by the authoritative claims of three major forces. These were the Scholastic methods of theology, which looked to religious doctrine and Aristotelian philosophy for authority, the inductive methods of science, which looked to nature for authority, and the literary and linguistic methods of Humanism, which looked to the ancient classics for authority.

Scholasticism was the target for considerable criticism at the hands of the naturalists and the Humanists and, as a result, began to decline in importance as an intellectual method during the fourteenth and fifteenth centuries. This decline was a corollary of the attacks upon the institutional authority of the church during the same period. Scholastic method became much more complicated, elaborate, and difficult. The records show that some of the Scholastic professors spent years in elaborating and commenting upon the books of the Bible. One professor at Vienna took 13 years to expound and comment upon five chapters of Genesis. As the arguments became more abstruse, the Schoolmen seemed to delight more and more in arguments for their own sake and exhibited less freedom and originality of thought, and their achievements became less valuable in solving the vital problems that confronted human society.

The scientists and naturalists turned away from religious tradition and toward investigation of nature. They stressed observation of natural phenomena, the collection of facts, and the inductive methods of generalizing from the observed facts rather than the deductive methods of argumentation and commentary upon the works of Aristotle. As the Scholastics had elevated the study of logic to a preminent position among the liberal arts, so did the scientists concentrate upon the mathematical arts of arithmetic, geometry, and astronomy as well as the subject matter of natural history and natural philosophy.

The Humanists took up the hue and cry against Scholasticism and put emphasis upon grammar and rhetoric as the prime methods of human intelligence. They considered the literary accomplishments of reading, writing, and rhetorical exposition as the best achievements of the human mind and as the means by which the intellect might be cultivated to its highest forms. In this process the standards of value and of appreciation as well as of literary excellence were found in the great masterpieces of Greek and Latin literature. The best subject matter

was considered to be, not religious doctrine or the secrets of nature, but the style and content of the ancient classics.

This shift of intellectual interests can be illustrated in many of the fields of knowledge of the Renaissance and represents one of the most important intellectual trends in the history of education. From the time of the Renaissance to the present, classical Humanism has played an enormous part in the ideals and methods of education in Europe and America, especially at the secondary and higher levels. By and large, because of the educational consequences of Humanism, the revival of ancient classical learning was the most influential intellectual factor of the Renaissance, just as the reassertion of religious interests was paramount in the Reformation and as science had its turn in the Enlightenment.

Social Role of the Arts and Sciences

Humanism and the revival of classical learning. Beginning in the fourteenth century in Italy and continuing through the fifteenth and sixteenth centuries in most of western Europe, men began to be more and more interested in ancient classical literature. The Humanists did not break violently with medievalism or with religion, but more than previously they loved intensely the classical languages and literature, and they scorned all other authority. In a narrow sense, the Humanists were no more interested in the investigation of nature itself than were the Scholastics.

In its broadest sense, Humanism found a new vitality of interest in human nature and the importance of human individuality in contrast to the submissiveness of the individual to the institutional demands of church, guild, manor, and monastery. The Humanists found the best portrayal of the perfection and development of *human* nature in classical rather than in medieval literature. It was in this sense that those interested in the revival of classical learning liked to call themselves Humanists. The widespread interest in classical literature and civilization was expressed first in the cities of Italy, where a general efflorescence of political and economic life was taking place in the fourteenth century.

Francis Petrarch is usually considered the initiator of the revival of a specialized interest in the Latin classics. Petrarch despised the principal medieval instruments of knowledge and tried to emulate the Latin style of the ancient writers, especially Vergil and Cicero. In his desire to reestablish the glory of the Roman Empire he was indefatigable in his search for classical manuscripts; he edited many of them, using only pagan sources as his authority; and he became acquainted with nearly all the accessible Latin authors. Although he wrote much lyrical

poetry in his native Italian, he always prided himself on his accomplishment in writing classical Latin, for he considered 'classical Latin poetry the only *real* poetry.

Stimulated by Petrarch, a growing number of Humanists became interested in asserting the values and superiority of classical Latin over medieval Latin as the best expression of the human spirit. Despite all other claims that were made in praise of the classics the one above all others was the claim for the superiority of classical *style*. This meant that every effort was made to substitute classical Latin for medieval Latin as the medium of discourse among educated men everywhere.

By the fifteenth century the interest in reviving classical Greek was also apparent. Greek scholars, headed by Chrysoloras, began to come to Italy and lecture on Greek literature and to bring Greek manuscripts from the East for editing and translation. In addition to Petrarch and Chrysoloras many others in Italy became enthusiastic over Latin or Greek or both; Boccaccio, Poggio Bracciolini, Valla, Vergerius, and Guarino were among these. In northern Europe and the Low Countries a similar interest was spread by such scholars as Agricola, Hegius, Wessel, Wimpfeling, Reuchlin, and Melanchthon. Reuchlin was outstanding in his promotion of Hebrew as a scholarly classical language. In his defense of Hebrew writings against those who would burn the books of Jews as heretical, he was able to strike an early blow against the book burners and in favor of tolerance and intellectual freedom in the field of scholarship.

Above all others in asserting the claims of Humanist learning was Erasmus of Rotterdam, the outstanding scholar of his age. He taught at universities in England and France and traveled widely in Europe preaching the Humanist gospel. He edited some twenty-five Greek and Latin authors and many of the works of the church fathers, including St. Augustine, St. Gregory, and St. Jerome's *Vulgate*; he translated the New Testament into a scholarly Greek edition, which was later used as the basis for the King James translation into English.

In England the Humanist cause was espoused not only by Erasmus but also by the Oxford Reformers, who promoted the new Humanist learning throughout England. John Colet, Cardinal Wolsey, Sir Thomas More, Sir Thomas Elyot, Vives, and Roger Ascham were a few of these enthusiasts; and Henry VIII sponsored the movement by lending the weight of money, influence, and authority to the Humanist cause. In France such writers as Budaeus, Rabelais, Petrus Ramus, and Montaigne all attacked the medieval traditions of Scholasticism and urged a reawakening along more flexible Humanist lines.

Meanwhile, despite the concerted efforts of the Humanists to raise the classics to a place of undisputed authority in nearly all the coun-

tries of Europe, the vernacular literature continued to exert a wide popular appeal and to enlist the efforts of first-rate writers, including some of the Humanists themselves. In Italy Dante produced the great poetry of his *Divine Comedy*, Petrarch himself wrote many Italian lyrics, and Boccaccio wrote much Italian poetry and prose, the most famous of which is his collection of mirthful and carnal tales known as the *Decameron*, which probably reflected the life of Florence in his time. The essentially medieval and religious temper of Dante's *Divine Comedy* in contrast with Boccaccio's *Decameron* reveals the wide range of human interests existing in Italy in the fourteenth century and shows how the atmosphere of life was shifting from the religious to the naturalistic.

In Germany the songs and tales of the minnesingers and meistersingers remained popular; in England the *Canterbury Tales* of Chaucer and Sir Thomas More's *Utopia* found an increasingly wider audience; and in France the tales of *Gargantua* and *Pantagruel* by Rabelais appealed to a public that appreciated his satire and caricatures of the institutions of his day, and the essays of Montaigne furnished the cultivated ideal of scholarly letters for the pleasure of the intellectual classes. Even though the Humanists were likely to belittle literary expression in the vernacular tongues, these were being developed and refined until at length the English, French, German, and Spanish masterpieces of the following centuries were produced.

Philosophy. No contributions to philosophy were made during the Renaissance that could compare with the contributions in other fields. This was perhaps the result of the Humanists' overpowering interest in literature and style. In the field of logic there were attacks upon Aristotelianism and an emphasis upon inductive methods, but these were not delivered by the Humanists so much as by the scientists and naturalists. The only organized effort of the Humanists to probe the fundamental problems of philosophy was the organization of the Platonic Academy in Italy in the fourteenth century. In general, they were interested in reconciling and showing the essential unity of all religions and philosophy. They gloried in the methods of the contemplative life, they relied upon allegories and mysticism, and they "proved" the identity of religions by allegory, by simply asserting in complicated ways that all religions are identical and by working up an emotional ecstasy over the assertions. They virtually lost sight of distinctions among philosophies, religions, and sciences in their attempts to achieve harmony.

Social sciences. The prominent Humanist historians in Italy of the fourteenth and fifteenth centuries discarded the straightforward chronicles of earlier historians because they lacked the Humanistic emphasis on style made popular by Petrarch and Boccaccio. Bruni and Poggio

Bracciolini were influenced in their writing of history by the style and rhetoric of Livy. In their hands, all events became great events, as they sought for the epic dignity of Livy and described battles and couched speeches in the resonant phrases of Cicero. The best Italian historians, however, were Machiavelli and Guicciardini, neither of whom was a Humanist. They wrote in Italian, which had been established by the late fifteenth century as a proper medium for great writings, but their style rivaled that of the Humanist historians. They used good sources, checked with documents and archives, and they grouped their facts in such a way as to show causes and results. There was little of sweetness and light in their writings, for they were both cynical realists impressed by the selfishness and greed of man. In this respect they were outstanding forerunners of the modern "debunkers" of history. On the other hand, much of our long tradition of respect and reverence for the achievements of the Renaissance are the result of the self-glorifying and self-admiration of the Humanist historians, who saw greatness in their own day but little of value in the preceding "Dark Ages."

Science and mathematics. A general skepticism concerning Scholastic notions of natural philosophy was on the increase in the fourteenth century. Duns Scotus was more interested in natural science than most Scholastics, but Scholasticism was losing favor and Humanism was largely indifferent to natural science. When Humanists *were* interested in the subject, they were likely to go back to the oldest texts, and even then they were more interested in philological accuracy than in scientific content.

However, notable gains were made by a growing number of scientists. As a result of his studies in mathematics, astronomy, and physics, Copernicus decided that Ptolemy was wrong about the earth being the center of the universe and arrived at the conclusion that the sun is the center. The groundwork was thus laid for Galileo later to complete the heliocentric theory. Likewise, Vesalius laid the foundations of the modern study of anatomy in his investigations and lectures at the universities at Louvain, Paris, and Padua. Paré became the greatest surgeon of his time, Palissy lectured on natural history at Paris, and Agricola promoted the scientific study of mining and metallurgy in addition to his Humanist interests. Although progress was not very rapid, a solid basis was being laid upon which modern science rests.

Art. Whereas medieval art had been largely didactic aiming at the teaching of religious lessons, as in the great Gothic cathedrals, Renaissance art began to depict the human body and landscapes with greater realism. Early Renaissance painting displayed a detailed realism that later became more dignified, restrained, and expressive of emotional content rather than being confined simply to the depicting of nature as

it is. The great masters of Italian painting included Giotto, Masaccio, Fra Filippo Lippi, Botticelli, Ghirlandaio, Titian, Leonardo da Vinci, Michelangelo, Raphael, Fra Bartolommeo, and Andrea del Sarto. In Germany the great Renaissance painters were Albrecht Dürer, Mathias Grünewald, Albrecht Altdorfer, and Hans Holbein, and in Holland they were Jan Van Eyck and Pieter Breughel. The great sculptors of Italy were Ghiberti, Donatello, and Michelangelo.

In much of Renaissance architecture the forms and details of Imperial Rome were applied to the decoration of public buildings, churches, and dwellings. In the Gothic cathedral the pointed and vaulted arches were used along with sculpture and stained glass as integral parts of the total effect, but in Renaissance architecture the decorative effects were additions to the structure of the building; the Roman arch, pillars, entablatures, and pediments were ornamental devices used to decorate the interiors and exteriors of the buildings. The recurrent classical revivals in architecture that swept England in the seventeenth century, France in the eighteenth century, and America in the nineteenth century have left us a legacy of Renaissance capitol buildings, "state-houses," courthouses, banks, and public buildings, the very nature of whose design was to impress the beholder with the dignity, power, and solidity of the institutions that they represented.

Practical arts. The development of certain practical arts and techniques had attained such a state of refinement by the Renaissance period that enormous social and intellectual effects were the result. For one thing, the rise of the national state rested upon new arts of warmaking, which resulted from the development of gunpowder, gun barrels, cannon, fortifications, and military engineering. Advances in art were made possible by new techniques in working with gold, silver, bronze, and pottery, in the production of mosaics and terracotta, in engraving, and in making oil paints. Scientific measurement was made more accurate by the development of mechanical clocks and watches. Improvements in the size and shape of sailing vessels, rigging, and rudders accompanied the demands of exploration and expanding commerce.

Above all, the invention of movable type and refinements in paper-making and inkmaking led to the development of the printing press in the fifteenth century through the efforts of Gutenberg and others. Religious and classical writings were among the earliest books printed. The implications of the printing press were, of course, enormous. The sheer fact that knowledge could now be more easily disseminated made popular education a possibility and eventually a necessity. Without the presence at hand of the technical means of cheap printing, no amount of argument could have achieved widespread popular education. Indeed, it might never have been thought of.

ORGANIZATION AND CONTROL OF EDUCATIONAL INSTITUTIONS

Many of the political quarrels between the kings and the church and between the people and the nobles were reenacted in struggles over the control of schools. Just as modern nations have realized anew that political power rests in the last analysis not only upon military power and legal control but also upon the control of education, so the Renaissance began to realize dimly this important relationship. Although the church maintained its strong position in the face of attacks, nevertheless definite gains were made by kings and other rulers in establishing, maintaining, or interfering with the schools and universities. This was not a time when complete national or state school systems were set up, but the groundwork was being laid for national systems of schools in later centuries.

Likewise, the rise of commercial and business interests, personified in the increased power and status of the middle class, was reflected in at least two changes in the schools. One was an impetus given to vernacular schools that would give to the children of the middle classes the rudiments of reading and writing as a means of preparing them to engage in the everyday affairs of business, legal, and commercial transactions. The other change was the growing interest of the middle classes in the Latin schools as a means by which their children could gain social and intellectual access to the company of the upper classes. By putting their new sources of wealth at the disposal of schools the middle classes began to make available to their children a "gentlemanly" education that could not otherwise be attained.

The faint outlines of the modern organization of schools began to appear in the distinction between vernacular, or "elementary," education for the ordinary people and classical, or "secondary," education for the upper classes. This distinction was not solidified or standardized during the Renaissance, but, as in so many other fields of endeavor, the roots of such distinction were gaining strength in the soil of Renaissance life and were being made ready to sprout during later centuries.

The Struggles for Secular Control

The medieval pattern of school control had been centered in the church, with the Pope in supreme authority but with local administration in the hands of the bishop for his diocese or delegated by him to his *scholasticus*. The licensing of teachers came from these officials, who exerted general supervision over the schools in their jurisdiction. This pattern was naturally carried over into the Renaissance, for the church continued to maintain its parish schools, monastic schools, and cathedral

schools and to play an important role in the universities of Europe. As the cities grew, however, it became necessary for the larger cities to locate schools in outlying parishes in different parts of the town, for it had become difficult for children to travel from the outskirts of town to the central church. Conflicts over the control of new schools arose between church officials, who felt that the control of education was properly theirs, and other agencies, who began to lay claim to the right to establish and maintain schools. Among these agencies were the town governments, the secular rulers, private teachers, and voluntary associations of persons who wished to endow schools.

Town schools. The Italian towns had continued to maintain their schools throughout the Middle Ages, some of them doubtless exhibiting more or less continuity with their original foundations in the days of the Roman Empire. A decree in Ferrara in 1443 stated that new grammar schools could not be established unless the town council approved such a school. In Germany severe struggles arose between the church officials and the town authorities concerning whether or not the towns could set up schools under their own jurisdiction. Gradually, the towns won the right to establish schools by appealing for support now to the local ruler and now to the Pope over the head of the local bishop. In general, the foundations of Germany's modern public-parochial system were being laid as the town and church often reached agreements for joint operation of the schools. Often the priest would do the teaching, but the town would pay his salary and look upon him as a public official. As many of the Netherlands towns won freedom from the control of the feudal nobility, they also began to assert their rights to build schools and to choose and pay teachers.

Authority of the ruler. As a part of the general assertion of the rights of the state against the church that took place during the Renaissance, rulers began to lay greater claim to the control of education. The dukes and rulers of Italian cities often set up schools at their courts for the education of noble children and for the greater glorification of the court. Such were the schools of Vittorino da Feltre at Mantua and Guarino at Ferrara. In Brussels the duke of Brabant established several elementary schools for both boys and girls in the early fourteenth century. In Scotland King James I in the early fifteenth century decreed that public schools should be maintained as one means of reforming the clergy and promoting the ability to read and write.

In England the authority of the kings was increasingly being asserted in educational control. In 1391 Richard II denied a petition from the House of Commons that children of villeins should be prevented from attending school. Some time later it was decided through legislation and court decisions that all parents could freely send their children to

any school in England, provided, of course, that they could afford to do so. In the fifteenth century Henry VI was instrumental in founding many new grammar schools; Edward VI was even more active in closing down the chantry schools for the benefit of the endowments he could take over; and Henry VIII began to make money available again for the founding and refounding of grammar schools.

Private teachers. As the clientele available for school instruction grew larger and as the lucrative possibilities in school teaching were realized, the private teacher began to appear on the scene in order to make his living from the fees and tuition he could obtain. In general, the private and unauthorized teacher met with resistance both from the church and from the civil authorities. It has already been noted how the city of Ferrara tried to prevent unauthorized teachers from operating. In Ypres the town ruled that the three established schools should be the only ones to give instruction outside of individual homes; private tutors could be employed in the home if they gave instruction only to the children of the family and admitted no others. The duke of Brabant established his schools in Brussels to settle a quarrel that arose when certain private teachers kept on teaching without the approval of the *scholasticus*. In Gloucester, England, the masters of the established grammar school brought court action to restrain an unauthorized teacher from operating in the locality, but the court decided that there could be no private monopoly in the right to conduct grammar schools.

As time went on, private teachers began to organize themselves into guilds in order to protect themselves and to gain the right to teach. For example, in Germany the teachers of writing, commercial arithmetic, and bookkeeping organized themselves into the guild of *rechenmeisters*. They took an apprentice for several years, at the end of which he became a journeyman, known as a *schreiber*, until he became a full-fledged master in the guild.

Voluntary foundations. During the Renaissance the endowment principle in England went beyond the medieval chantry foundation, which had as its basis a religious motive, and was extended to include foundations designed specifically for the establishment of schools. When wealthy individuals or groups contributed money for the founding of schools, secular control was being exerted where only church control had been present before. These foundations were the origins of the English "public schools," the first of which was founded by William of Wykeham in 1382 at Winchester and the second at Eton in 1440 under Henry VI. The teachers were thus not directly responsible to church authorities, for the schools had a corporate existence independent of church control, although they remained highly religious in content and character. Boards of trustees were set up for the general supervision of the

schools, and, in some cases at least, these included representatives of the merchant or craft guilds. Whereas the schools of the medieval guilds were regularly taught by the clergy, the trend in the later Renaissance was to appoint and even to require the appointment of secular teachers in these public schools and guild schools.

Universities. In general, the universities of the Renaissance remained freer from secular controls than did the lower schools. This was doubtless a result of the long struggles carried on by the universities during the Middle Ages to achieve autonomy from church and state, but the rulers were gaining strength. In France the universities were centers of conservatism as far as Humanist learning was concerned; hence Francis I set up the *Collège de France* to be hospitable to Humanism, and the city of Bordeaux established the *Collège de Guyenne* under civil control. In the fifteenth century Louis XI decreed that the University of Paris was giving too much attention to the philosophy of nominalism and insisted that only realism should be taught in the arts and theological faculties; professors were required to take an oath to comply with this, and degrees were denied to students who did not conform. Although the decree was rescinded a few years later, it showed the increasing tendency of rulers to interfere in the affairs of the universities. Likewise, Henry VIII was trying to build up Humanist learning at the universities of Oxford and Cambridge by establishing new colleges that would be favorable to this interest.

Aristocratic Nature of Renaissance Education

In general, the education of the Renaissance was intended mainly for the youth of the upper and wealthy classes. The church was primarily interested in developing scholars and clergy for future leadership in the church; the rulers were interested in surrounding themselves with trained and loyal adherents who would be gentlemen as well as scholars; and the middle classes were interested in breaking into these two charmed circles. There were, however, certain tendencies toward a more democratic approach. The demands for vernacular schools for the common people were gaining in force, although such schools had to take a definitely inferior place in comparison with the classical and Latin grammar schools. Also, the provision of schools for girls at the lowest levels began to increase in some of the towns in Germany, the Low Countries, and France. Despite these gains, however, Renaissance education, which had an enormous effect upon both Europe and America, was definitely in favor of an aristocratic education of the elite centering in the ideals of classical Humanism and the cultivation of the gentlemanly graces.

Status of the Teaching Profession

Teachers doubtless gained in respect, social standing, and income during the Renaissance, especially those who were teaching in secondary schools. The patronage of teachers in the courtly schools gave them a high standing as the tutors of the youth of royal and noble birth. The wealth that flowed into town schools and private foundations gave impetus to the financial backing of education on a larger and larger scale. The fact that church officials held so tenaciously to their educational and teaching prerogatives and that others were so eager to obtain a share of teaching revenues indicates that teaching as a means of livelihood was increasing in public esteem. The increase in the number of secular teachers shows that teaching could be a full-time job and not merely incidental to the larger task of the priest.

This improvement in status was not so true of the vernacular school teachers, who constantly had to fight for their rights to be teachers at all and who were always considered to be in an inferior position. This class distinction between secondary school teachers and elementary school teachers was a basic quality of European education that has lasted for centuries and that continues in considerable force in the United States to the present time, even though the United States has given up in theory the class distinctions between elementary and secondary education. However, the fact that there were any vernacular teachers whatever in the Renaissance was an encouraging sign.

Nonschool Agencies of Education

Among the various nonschool agencies of education, the systems of apprenticeship set up by the guilds continued to be the most important methods of preparing youth of the lower and middle classes to enter upon their responsibilities as workers and citizens. The guilds continued to be strong and powerful in the political and economic life of the times throughout most of the Renaissance. For upper-class youth the training for knighthood and chivalry was losing its power as the nobility lost its former monopoly in the arts of war and politics. These youth turned to the courtly schools and the Latin grammar schools for whatever formal training they might gain. The vernacular literature began to provide wider sources of enjoyment for greater numbers of people, as did the public display of the art forms that were so profusely created, especially in the Italian Renaissance. The church, of course, continued to exert a powerful influence upon the people despite the attacks being made upon it. Finally, the first dim realizations of the possibilities of popular enlightenment through the printing press were beginning to

appear, although not much headway was made in this-respect until the Reformation and after.

EDUCATIONAL AIMS, CURRICULUM, AND METHODS

Of the rival claims on the intellectual loyalties of men during the Renaissance, namely, religion, science, and Humanism, the one that educators championed most actively was Humanism. Many of the educators echoed the cry of the Humanists that classical Latin should be substituted for medieval Latin in the schools and universities of the day. This movement for educational reform, which started in Italy in the fifteenth century and soon spread to Germany, England, and France, met with a good deal of resistance from the established church schools. By dint of much writing, speaking, and traveling the Humanists made good their claims in the sixteenth century, either by winning over the church schools, by refounding them, or by setting up new schools.

Schools for Scholars and Gentlemen

Italy. The most outstanding of the many Humanist schools in Italy was that of Vittorino da Feltre, who was called in by the duke of Mantua to establish a school for his children. Vittorino set out to create a school according to the ideas of Cicero and Quintilian as he interpreted them. He accepted in his school not only the children of the nobility but apparently a few lower-class boys as well. The aims of the school were couched in terms of the Roman ideal, of a wellborn youth with a broad and rounded background of knowledge, the manners and social graces suitable to the ruling classes, and loyalty to basic Christian principles. The principal means to this end were the study of the classics and mathematics.

Vittorino's course of study is interesting in that all the seven liberal arts were present in it except logic. This represented the Humanist's distaste for medieval Scholasticism and his glorification of grammar and rhetoric. Much attention was given to the study of Latin and Greek grammar at an early age and to declamation, composition, and the elegances of style to be achieved through rhetoric. Much use was made of imitating and memorizing long passages from Cicero, Vergil, Ovid, Horace, Homer, and Demosthenes as well as other standard Latin and Greek authors. Arithmetic, geometry, astronomy, and a little music were also studied.

The significant thing is that the basic medieval liberal arts were taught, with the reinterpretation given to them by the Humanist emphasis upon classical literature. This might mean a revitalizing and stimulating experience for those fifteenth-century youth who could catch

the enthusiasms of the early Humanist educators. Vittorino went beyond the liberal arts to try to recapture the classical ideal of well-rounded development and made much of physical training, games, sports, athletic contests, and exercise. Whether this was considered a good in itself or simply a means to provide recreation so that intellectual studies could be pursued even more profitably is hard to determine. Certainly the ideal of physical development as a prerequisite for military training was also part of the picture.

This whole experience was doubtless refreshing and exhilarating to many students in comparison with what was to be found in the church schools of the day, and the study of the great authors might have become a liberalizing education. The fact is, however, that in other Humanist schools throughout Europe the Humanists' supreme interest in style and composition overshadowed the classical ideal of well-rounded development. It was not long before slavish attention to grammar and rhetoric led to the charges of "Ciceronianism," from which Humanist schools never completely recovered.

Northern Europe. Much the same story could be told of Germany, the Netherlands, and France. Scholars went to Italy, studied in the Humanist schools, and returned home fired with the zeal to reform the schools along classical lines. In the north there seemed to be a much stronger alliance between religion and Humanism than in Italy, and consequently the interest in the classical languages was stimulated by the desire to study and investigate the original sources of the Scriptures in Greek, Latin, and Hebrew. The classics were thus studied as sacred languages as well as secular languages.

One example of this tendency is furnished by the clerical and lay society known as the Brothers of the Common Life, founded in the Low Countries in the fourteenth century by Gerhard Groot. The members of this society spent much of their time and earned their livelihood by copying manuscripts. Gradually they began to give instruction in the town schools and eventually established their own schools in such cities as Deventer, Brussels, and Antwerp. Under the influence of Agricola, Hegius, and Erasmus, who had been students in these schools, the classics were introduced into their curriculums in the late fifteenth century; with the onset of the Reformation the importance of the brothers' schools began to decline.

England. The Humanist enthusiasm struck England in the late fifteenth century and gradually found its way into the cathedral grammar schools of the church, into new church schools set up for the purpose, and into the "public schools" as they were founded. The public school ideal was greatly influenced by the Renaissance ideal of gentlemanly education, and Eton soon had a large playing field designed to give

physical exercise and training for the "battles of life," as Vittorino had proposed. In this respect the English public schools differed from the grammar schools of France and Germany, which had insisted upon the intellectual rigors of classical discipline almost to the exclusion of all else. Classical Latin and Greek had entered Eton by the sixteenth century.

Among the church grammar schools of England that at St. Paul's Cathedral was notable in introducing classical learning, under the leadership of John Colet, who had been in Italy and had caught the Humanist enthusiasm. He spent a considerable amount of money to convert the medieval cathedral school at St. Paul's into a Humanistic grammar school. Although it was not the first Humanistic school, its eminence and the influence of Colet helped to introduce classical Humanism into the dozens of other grammar schools of this time. The stress was usually upon learning the rules of Latin and Greek grammar, declensions of nouns, and conjugations of verbs and the reading of such authors as Cicero, Horace, Vergil, Cato, Aesop, and Erasmus.

In summary, the Humanist influence upon European secondary education was very important. It established the classics permanently as the heart of secondary education, and it helped to make secondary schools in essence preparatory institutions for further study in the universities. Above all, Humanism established the tradition that no person might be counted as truly educated who had not had training in the classics. This was, to the Humanist, the mark of the scholar and the gentleman. The aim of education had been broadened to include preparation for service in the secular life of the times, in the state as well as in the church, in the social life of the nobleman and in the work of the great merchant. But, for any of these purposes, the Humanist insisted that the common background of the truly educated and cultured person must be knowledge and training in the classics.

Schools for the Common Man

In comparison with the influence and achievements of Humanist education the progress of the vernacular schools during the Renaissance seems to have been slight indeed. Part of the reason for this was doubtless the general feeling that one's mother tongue was learned sufficiently well in the family circle and that therefore there was no particular need to offer special instruction in what everyone learned in any case. So long as the vernaculars were simply *spoken* tongues, there was undoubtedly much justification for their not being taught in schools. When, however, law courts began to use the vernacular in their records, when contracts, wills and deeds, business and commercial transactions, and the whole record of an increasingly complex society began to be

kept in the vernacular, the merely incidental acquisition of the mother tongue was no longer as satisfactory as it had been.

Thus, here and there, schools to teach reading and writing in the vernacular and the elements of arithmetic and computation began to appear during the Renaissance. They suffered in comparison with the Humanist schools because they had no "intellectual content" or mental discipline, but they persisted in response to the demands of the people and began to make real headway in the Reformation period. In later centuries they were recognized as part of the national systems of education, but they were nearly always considered to be inferior schools for lower classes of people—at least they were so considered by the "truly educated" persons as defined by the Humanists.

Higher Education

In Italy, classical learning was promoted largely by court and municipality rather than by church or university. It made little impression upon the older universities whose conservatism and medieval learning resisted its entrance, and it was accepted only in a very subsidiary position where it was accepted at all.

In France, the story was much the same. The courts led the way in the acceptance of Humanism, whereas the church and the universities gave little but opposition. The University of Paris kept aloof from the movement, which it rightly considered as a reform that would threaten the vested interests of theology, Aristotelian philosophy, and canon law. It kept to its Scholastic ways of thinking and remained engrossed with the subtleties of discussion concerning universal principles instead of admitting the new Humanist spirit, with its enthusiasms for style and beauty. Humanism did gain entrance into some of the higher schools, however; Francis I with the aid of the scholar Budé founded the *Collège de France* in which chairs were established for professors of Greek, Hebrew, Latin, French, law, philosophy, mathematics, and medicine. Classical learning was also promoted by such institutions as those set up by municipal governments at Bordeaux, Lyons, Orléans, Reims, and Montpellier.

Again, in Germany, the courts and schools accepted the new learning before the universities did. Lectures on classical antiquity were attempted as early as the latter part of the fifteenth century but met with little response by the universities until after 1500. Then, as the religious reformers adopted the new learning, it gradually was accepted by the universities under the leadership of a reform group at Erfurt and Tübingen and especially under the impetus of Melancthon at Wittenberg and Nuremberg.

In England, a somewhat different situation obtained. The Oxford Reformers, a group of orthodox Catholics, aiming at the general reform of church and society as well as of school and university, were aided by Henry VIII and were able to make substantial gains for the new learning in actual educational practice. Lectures on Greek were read at Oxford by Vitelli, Linacre, Grocyn, and Colet in the late fifteenth century; but neither Oxford nor Cambridge made official provision for humanistic studies until the early sixteenth century, when Erasmus began to present the new learning at Jesus College at Cambridge.

Soon the first avowedly Humanistic colleges recognizing Greek and Hebrew were founded, namely, Christ's College (1505) and St. John's (1511) at Cambridge and Corpus Christi (1514) at Oxford. Erasmus taught at Cambridge for four years from 1511, and Vives taught at Oxford in 1522. Even greater advances toward Humanistic studies were made at Cambridge when Aristotle began to be studied from the commentaries of the Humanists, Agricola and Ramus, rather than from the glosses of the medieval Schoolmen. Thus, Humanism steadily gained ground in the subjects of both the trivium and the quadrivium, until finally the founding of Trinity College, Cambridge, in 1546 with its several fellows in Greek along with the regius professorships in Greek, Hebrew, and civil law, appointed earlier by Henry VIII, set the seal upon the transition from the medieval to the Humanistic tradition.

Actual modifications in the prescribed curriculum of the English universities meant a decline in the importance of logic and a reemphasis upon grammar and rhetoric. In the hands of the Humanists, grammar lost its purely medieval aspect and was expanded to include the grammar and literature of classical Latin, Greek, Hebrew, and other Oriental languages. Rhetoric also began to receive a greater attention characteristic of the Humanists' interest in the style and form of written and oral speech. Under the influence of Ramus, logic was simplified and freed of the complexities of Scholastic treatment. The most obvious effect of the Renaissance upon the arts curriculum was the substitution of ancient classical language and literature for medieval and religious language and literature. As the classics became "polite letters" particularly suitable for the education of a "gentleman," the Renaissance tended to reaffirm the aristocratic conception of a liberal education, which the Greeks and Romans had praised so highly.

Before continuing with the story of educational theory in the Renaissance, it may be interesting to note how the passage of time has reversed the position of educational progressives and conservatives. During the Renaissance, the Humanists were the progressives, urging that the new and vital Humanistic studies should be substituted for the outworn and obsolete studies of the Middle Ages. The Humanists justified

their position with such arguments as the following: The development of the individual is of prime importance. The interests and nature of the individual should be considered in education. The student should be given freedom from the obscurantism of medievalism. The student should pursue more "realistic" studies. The Humanists insisted that the classical studies of literature, poetry, and oratory were admirably suited for attaining these ends.

The curious thing is that in the eighteenth and nineteenth centuries these were the very same arguments that were used by the new progressives, who were then favoring the scientific and social studies as a means of breaking down the very classical curriculum that the Humanists had been at such pains to set up during the Renaissance. The Humanists who were progressives in the Renaissance had become the conservatives of a later date, and they insistently called upon the Renaissance ideal of culture and the Renaissance conception of a liberal education to bulwark the prescribed classical curriculum against the "barbarians" who advocated any other subjects. The explanation of this rather common educational phenomenon may be that when the Renaissance was at its height the classical curriculum, in comparison with the medieval curriculum, probably did stimulate the imagination and tend to develop the individuality of students. The point is that, as the older social, intellectual, and technological conditions were greatly modified, the older conception of a liberal education was no longer appropriate to the changed situation. The once flexible and liberal curriculum of the Humanists became the rigid and conservative curriculum remote from the realities of a later time.

Educational Theory

The actual practices in Renaissance schools were, as is often the case, at wide variance with the theory propounded by the writers on education. Indeed, it was the imputed evils of practice that led to much of the theorizing. The accounts of actual practice seem to show that memorizing and whipping were the chief tools of learning in most Renaissance schools. For example, an account of how grammar was taught in an Italian town in the fourteenth century shows that the master read aloud from selected authors for the first 5 days of the week; during this time the students memorized selections from Cicero and Vergil, and on Saturday they reviewed all that they had learned during the week. Meanwhile the submaster taught Donatus and Cato to the younger pupils. In a school in Aberdeen in the early sixteenth century the regimen seems to have been something like this: Before 7:00 A.M. the pupils kneeled and saluted the Virgin Mary; at 7:00 A.M. the master arrived and flogged them for the faults of the day before; then they had

breakfast; during the morning and afternoon selected authors were read aloud by the master and submaster, and the selections were memorized by the pupils; at 7:00 P.M. they had prayers and went to bed; all were forbidden to speak in the vernacular, and the beginners were forbidden to speak at all.

Italian theory. In Italy most of the written statements of educational theory were made by Humanists, of whom the most prominent were Vergerius, Guarino, Vittorino, Aeneas Sylvius, Alberti, and, the most famous of all, Castiglione. Although they had many differences in their points of view, the composite of their outlook was somewhat as follows:

The aims of Humanistic education were to produce a broadly educated person having a well-rounded personality and capable of assuming leadership in church or state. He should be at home in the field of classical knowledge and yet be an effective man of action and citizen. He should possess a wide range of accomplishments, should be able to express himself in poetry, song, and dance, should possess good health and physical dexterity, should be able to develop his personal ambitions, and should be withal a Christian gentleman with all the social graces. The Humanists drew heavily upon the ideals of Quintilian and Cicero, and they added their own interpretations of the versatile accomplishments appropriate to a scholar and gentleman in Renaissance times. Considerable attention was given to the education of girls by the Humanist writers, and their detailed descriptions reveal that the woman should be a versatile and charming companion for the ideal courtier. The aims were broad and generous but far outstripped the ability to devise a curriculum or methods that were entirely appropriate to the ideal.

The curriculum designed to produce the "courtier" leaned heavily, as already suggested, upon the classical literature of Greece and Rome. In their enthusiasm for the classics the Humanists attributed all-inclusive values to them. They believed that they would develop the well-rounded personality, would give practical aids to a life of action, and would instill the qualities of artistic enjoyment and moral worth and afford the wide learning which they desired. In comparison with the classics only slight attention was given to mathematics, natural history, music, and dancing, and none to the vernacular. History and ethics could be studied from the classical historians and writers. Physical education was important in Vittorino's school and in the written treatises, but the *sine qua non* was an emphasis on grammar, composition, versifying, and rhetoric.

As to methods of teaching, the common assent of the Humanists was that memorizing was the most important, although they agreed that it would be well if the student could understand the rules as he learned

them. Considerable importance was conceded to recognizing individual differences among pupils, but the Humanists were always a little vague as to how this could be achieved in the study of Cicero or Vergil. Also, it was urged that the rigors of corporal punishment be lightened in favor of appeals to the pride and ambition of pupils in rivalry with one another for social approval. There is no doubt that Humanist theory went far beyond the practices of the day, far beyond the actual achievements of the Humanist grammar school as well as those of the traditional church schools. It is interesting, however, that the Humanist theory gave little attention to the way in which education could contribute to those great arts of painting, sculpture, and architecture in which the Italian Renaissance was leading the world of the time. The explanation seems to be that these arts were not considered "liberal" arts despite the magnificent heights they reached. They were still technical crafts in the eyes of the literary Humanist.

England. The viewpoints of the English writers on education had much in common with those of the Italian Humanists. Vives, a Spaniard who taught Catherine of Aragon and went to England with her, advocated that the school should reduce its lag behind society, adapt instruction to the individual differences and interests of pupils, and use the classics as the foundation for wisdom rather than merely as examples of good literary style. He was one of the few who declared that the vernacular could be of value in education, and he emphasized the importance of the education of girls. His aim for girls was the development through letters and moral teaching of the high-principled lady, wife, and mother who would become the intelligent companion and mistress of the household.

Another and even more influential writer was Sir Thomas Elyot, a nonchurchman, statesman, and scholar who promoted Greek learning and translated Plutarch and Isocrates into English. In his *Book Called the Governor*, written in English, he sets forth the curriculum desirable for educating the statesman, namely, Greek, Latin, rhetoric, logic, geometry, astronomy, music, history, geography, drawing, sculpture, and physical education. His book is notable for its inclusion of the social sciences, the arts, and physical education, in which respect he went beyond many of the Humanists of his time. He urged that a university education in these fields was as essential for a successful career in the secular world as in religious offices, but, as always, the Humanist came out in his insistence upon Plato and Cicero as the prime studies even though his aim was the development of the scholarly gentleman.

A third writer was Roger Ascham, tutor to Queen Elizabeth and professor at Cambridge. His *Schoolmaster* is full of learning and common sense, revealing the methods of his time and recommending reforms. For

example, the custom was apparently to learn Latin by memorizing the rules of grammar and then repeating the Latin sentences directly until learned. Ascham recommends the startling notion that the student learn his English first, then translate the English into Latin and back into English. Ascham also wrote extensively on physical training and outdoor activity, which he felt were important for scholars and students as well as for the nobility and leisure classes.

France. One of the outstanding Humanist scholars in France was Budé (or Budaëus), who wrote an outline for the liberal education of a prince, hoping that Francis I would take the hint. The crux of his proposal was that a prince should love letters, Greek above all, and cultivate his interest in style and in history. The most popular author in France was doubtless Rabelais, who set the people laughing at the schools in his *Gargantua* and *Pantagruel*. Writing in French and reaching a popular audience, Rabelais ridiculed the dry formalism of the Humanist schools as well as other social excesses of his time. He depicted his own ideas of educational reform in exaggerated form, caricaturing the older methods as compared with newer and more realistic methods. He advocated the classics, to be sure, but he insisted that they should give real and useful guidance to conduct rather than simply represent bookish, linguistic, and literary values. His proposed curriculum apparently included all the subjects he could think of, not only Latin and Greek but also Hebrew, Arabic, Chaldee, grammar, arithmetic, geometry, astronomy, music, history, geography, civil law, philosophy, natural science, and physical education. Rabelais revealed his naturalistic bent in his own study and teaching of science, medicine, and anatomy; in this respect he was more than a literary Humanist.

Another scholar who perhaps had more direct influence upon educational content was Petrus Ramus, who went even further than Rabelais in his adherence to the naturalistic interest in science and mathematics. Ramus lashed both the Aristotelian Scholastics and the Ciceronian Humanists, and the word "Ramism" was coined to represent his attack upon these twin scourges of education. He set out to reform each of the liberal arts by improving the material studied and by making the methods of acquisition simpler and easier. His efforts were directed toward a careful systematizing and simplifying of the knowledge of the ancient authors and the eliminating of the superfluities and intricacies of medieval commentaries. In this way he helped to make knowledge more applicable to actual social situations, to free it from ecclesiastical control, and ultimately to clear the way for a new mathematics and science by his emphasis upon these subjects. He wrote new textbooks on all the subjects of the seven liberal arts, as well as on physics, ethics, metaphysics, and theology, and they gained relatively wide vogue in Ger-

many, Switzerland, at Cambridge in England, and later in colonial America.

Finally, the man who perhaps represented as well as anyone the living ideal of Vittorino, Castiglione, and Elyot was Montaigne, not a churchman, not a teacher, not a scientist, but a scholarly gentleman and man of affairs and letters. In his urbane and sophisticated essays Montaigne combined the streams of Humanism and naturalism in his attacks upon formalism, verbalism, and blind reliance upon authority. He urged that the proper education of a gentleman should include the classics as sources of wisdom in action and not merely as models of literary style; modern languages as well as the classics; history, travel, and wide social contacts; and physical education.

Erasmus. Whereas Montaigne may have personified the ideal of the courtly gentleman and scholar, to the Humanists Erasmus was the scholar's scholar. His thoroughgoing research and editing of classical and religious manuscripts commanded the respect of the whole scholarly world, and his Latin schoolbooks became the texts for countless numbers of students in Humanist schools. In his *Liberal Education for Boys*, Erasmus joins in denouncing Ciceronian formalism and in praising the broad study of the classics to achieve knowledge, taste, and judgment. He urges that the interest of boys should be awakened in the work at hand rather than destroyed by disciplined drudgery and that gentleness should be substituted for floggings as an invitation to learning. He mildly recommends physical exercise and bitterly opposes the dialectical methods of Scholastic philosophy and theology.

He believed that man is naturally good; nature is beneficent and benevolent; and human nature is perfectible if only it be allowed to develop through the classics. To him religion was a matter, not of mystical or emotional faith, but simply of human intelligence; man can arrive at correct religious doctrines if proper scholarly texts are made available. The violence of the Reformation with its theological quarrels, devastating wars, and appeals to the doctrines of original sin and the pervading supernatural world left him cold. His belief in reasonableness led him to exalt the classical humanities as the prime means whereby education could distill the best from the classical and religious writings of the past and pass it on to students. His great influence gave enormous support to the belief that all persons who would be considered cultured and educated must know Latin and Greek. This, above all, has been the educational legacy of the Renaissance to the modern world.

CHAPTER IX

THE REFORMATION IN EUROPE

In the sixteenth and seventeenth centuries four principal cultural forces were striving for the loyalties of men and competing for control of educational institutions, curriculum, and methods. They were (1) the secular institutions of government and economics, (2) the religious institutions and beliefs of Catholic and Protestant churches, (3) the new outlooks described by science and the scientific method, and (4) the continuing influence of Humanism. All these forces had their roots deep in medieval and Renaissance times, but they became so interrelated in such significant ways that they gave rise to the culture now known as the Reformation.

THE INSTITUTIONS MEN LIVED BY

Consolidation of the National States

Centralization of royal power. The trend that had begun in the late medieval and Renaissance periods to put more political power in the hands of the kings progressed during the Reformation to such an extent that the seventeenth century has often been called the "age of absolutism." The medieval conception of a universal Christendom with the Pope as head received severe blows, and constant difficulties beset the long-lived Holy Roman Empire. The use of gunpowder, which had been introduced in the fifteenth century, made it possible for kings to raise mercenary armies of common men and thus to lower the prestige of the nobility, whose military effectiveness had been based upon protective armor and horseback warfare. Kings were able to raise money for their armies by cultivating the friendship of merchants and bankers, who saw economic gain in thus allying themselves against the nobility and the Catholic Church. Kings also found a source of ready money in taking over the property and funds of the Roman Catholic Church, which was enormously wealthy in many of the countries of Europe. The time thus seemed ripe for a coalition of kings, merchants, and Protestant reformers within the various national states to break the military, political, economic, and religious control of the Catholic Church in Europe.

The states most successful in their efforts to centralize royal power were Spain, France, and England. Through the strength of local rulers and the fortunes of war, Germany and Italy were delayed for generations in achieving a similar national unity.

In Spain the marriage of Ferdinand and Isabella late in the fifteenth century had united the most important of the Spanish states; and as a result of their efforts to break the power of the Spanish nobility, Spain emerged as one of the strongest national states in the sixteenth and seventeenth centuries. Charles V had become ruler not only of the Holy Roman Empire but also of Spain, southern Italy, Austria, the Netherlands, and much of the New World in America. Philip II was able to achieve almost absolute authority in Spain during the sixteenth century, but his international success was not so apparent. He lost the Netherlands through revolt; he was defeated by France; and his Spanish Armada was wrecked by English sea power. In the seventeenth century Spain began to lose her place as an international power; but at home the principle of absolute authority in the hands of the king remained paramount, and the close relationship between king and Catholic Church remained firm. Portugal regained freedom from Spain in the seventeenth century and lived on its commercial prosperity achieved largely through the efforts of the Portuguese explorers, who vied with the Spanish, English, and French in the New World, Africa, and Asia.

In France the trend toward royal supremacy proceeded apace, especially in the hands of Francis I, Henry IV of Navarre, Richelieu, and, finally, the supreme absolutist of all, Louis XIV. During this process France became a great European power as a result of a series of wars against England, Spain, Germany, and the Italian states. At home the process of consolidating the power of the king was even more successful, despite the wars of religion. The ideal of state sovereignty received effective statement by the scientist Jean Bodin, who argued that the sovereign state was completely free in its movements and could not be challenged legally by any other authority. This, of course, gave sanction to secular authority rather than religious authority over men's conduct.

In England at the opening of the sixteenth century Henry VII had been able to give England a large measure of peace, order, and security after the War of the Roses had exhausted nearly all factions among the nobles. Thus, when Henry VIII came to the throne his task of consolidation was hastened as he strove to build up the navy, took over the Catholic monasteries, disestablished the Catholic Church in favor of the Church of England, and won over many nobles as well as the merchant class to his side. The long reign of Queen Elizabeth further strengthened the power of the monarchy; the tremendous multiplication

of statutes issued by the crown concerning nearly all aspects of life reveals its increasing importance and power.

When the Stuart kings, James I and Charles I, came to the throne, they forcibly asserted the doctrine of the divine right of kings, only to be set back by the parliamentary revolts in which the merchant class and gentry joined with the Puritans to establish the Commonwealth for a decade or two during the middle of the seventeenth century. With the restoration of the Stuarts in 1660, Charles II and James II again claimed rule by divine right. Thomas Hobbes supported absolutism, but argued that it rests upon an original contract among men. In his *Leviathan* he asserts that laws are the commands of the political sovereign, who is subject to no legal limits; the people obey the laws of the absolute state because they realize that such obedience is the only sure means of preventing anarchy. The English people, however, found that absolutism was less to their liking than constitutionalism; therefore, William III was brought from the Netherlands to rule with Mary in a limited monarchy.

Constitutionalism and civil liberties. The revolt of the Netherlands against Spain, the setting up of the Dutch Republic and the English Commonwealth, and the limitations that Parliament put upon the power of William and Mary heralded the growth of constitutional government, in which the civil rights of the merchant class and gentry would be protected against autocratic usurpation by an absolute monarch. In the Netherlands and England the merchant classes grew strong enough to prevent the kind of absolutism that was achieved in France and Spain. In both cases the economic motive and the religious motives of Calvinism were joined together in a drive that led to greater democracy and asserted the right of the merchant class and gentry to share with the nobility and king in the control of public affairs. It is interesting to note that several of the important documents on civil and economic freedom were written by John Milton, the great Puritan poet and philosopher. In England, too, the Petition of Right in 1628 and the Bill of Rights of 1689 laid the foundations for the civil liberties that have been written into most democratic constitutions since that time.

The spirit of nationalism and education. One of the most far-reaching corollaries of the consolidation of the national states in Reformation times was the growth of the spirit of nationalism and the accentuation of national differences. The constant wars, the growing use of vernacular languages, the desire for economic gain assisted and protected by the national state, and a mounting sense that each nationality was different from (and better than) all other nationalities gave rise to a feeling of national importance and patriotism, the harvest of which the world has been reaping in the form of nationalistic wars down to the present time.

In the process of building up the spirit of nationalism, schools and education have played an enormous share. The inculcation of national loyalties through the schools and the teaching of the vernacular language became eventually a primary task of the national school systems. That is why the story of the national state in the Reformation is so important for the present day. The groundwork for state control of educational organization, aims, and curriculum was being laid in this period. The control of education was being taken out of the hands of the Catholic Church and put into the hands of national churches with the authority of the state to back them up. Eventually, the authority of the state began to displace that of the established churches and exert the supreme control over education.

The Commercial Revolution

Geographic discoveries. Stimulated by the desire for aggrandizement among the merchant classes and among the state rulers, the great period of exploration and discovery began in the late fifteenth and continued into the sixteenth and seventeenth centuries. It is no accident that the discoveries of Columbus, Dias, Da Gama, Magellan, Cabot, and Cartier among many others came when they did and that it was principally the countries of the Atlantic seacoast which sponsored the explorations. In view of the fact that they had become strong and consolidated national states, Spain, Portugal, France, and England began to take over the trade routes of the world. As the Netherlands became a strong merchant state, it took the place of Spain and Portugal and competed with England and France in the seventeenth century for commercial supremacy. Trade routes shifted from the Mediterranean to the Atlantic, with the consequent decline in power of the Italian cities and the growth of such Atlantic cities as Lisbon, Antwerp, Bruges, and London. The imaginations and the economic desires of men were stimulated by the visions of conquest and wealth thus opened up by the New World. The Spanish conquerors, Cortes in Mexico and Pizarro in Peru, and the English, Dutch, and French freebooters all fought for the glory of God, for their respective kings, and for the money they could make. Religious, nationalistic, and capitalistic motives were closely interlocked, and the scientific and technological advances in navigation, ship-building, and warfare made the explorations and conquests possible.

Growth of the middle class and capitalism. The progress that the merchant class had made in earlier centuries increased rapidly in the Reformation period, and corresponding changes took place in the economy of Europe. As gold and silver bullion was shipped in from the New World, the agricultural and feudal economy of Europe began to shake and eventually tumbled. Prices went up; money became even

more important than land as a source of wealth; and merchants and bankers began to take the place of the feudal nobility as economic powers. Cities became ever more important and replaced the medieval manors as centers of economic life. The characteristic institutions of commercial capitalism were being developed in the form of stock companies on a large scale, money exchanges, credit, interest charges, insurance, and banks.

In the medieval guild system the craftsman had owned his own tools, was master of his own shop, and worked according to rules laid down by the guild concerning prices, wages, quality of goods, and conditions of work. The guild economy had been bulwarked by the Catholic Church, with its insistence upon a fair price and its outlawing of usury, and was based upon a doctrine of subsistence and subordination of worldly goods to the demands of the hereafter. However, the secular temper (always present but now sharply emphasized) of the merchant classes led to a growing respect for productive work, a greater regard for the acquisition of worldly goods, and a decline in respect for the monastic ideal of retirement from the affairs of this world. The "get-rich-quick" spirit was born and proved a lusty infant.

Because the guild system was organized for a stable or even static agricultural economy, the merchants of the Reformation instituted practices sharply in contrast to guild regulations, practices that have been given the name "domestic system." According to the domestic system, a merchant or trader who had saved or borrowed money bought raw materials as cheaply as he could and then hired workmen (the old guild craftsmen, who worked in their own homes; thus the term "domestic") to make the materials into finished goods. The merchant paid the workmen by the piece at as low a figure as he could manage, always holding out the threat of giving his business to other workmen if the wage was protested as too low. The merchant then sold the finished goods on the open market for as high a price as he could get for them. Naturally, the merchant wanted the source of raw materials to be easily available to him, and he wanted his finished goods to arrive safely at their destination. Thus, he was strongly in favor of the king who could suppress robbers and highwaymen both at home and abroad. He gave his support and money to the ruler who would establish stringent civil laws at home for the protection of property, who would build an army and navy to protect trade routes on land and sea, and who would conquer new lands as potential sources of raw materials and potential markets for finished goods.

Hence it was that the earliest phase of modern capitalism was mercantile capitalism, or mercantilism. According to this doctrine, wealth is measured not so much by land or labor as by the abundance of gold

and silver money in a country. Consequently, the state must see to it that it has colonies or other available sources of the precious metals. The state must not only win and preserve the colonies, but it must ensure that internal order is maintained so that business may proceed efficiently and safely. The state must do all in its power to regulate, protect, and promote business interests through protective tariffs, subsidies, taxation, and gaining of colonies. In effect, then, mercantilism means strict state control of business, but always, the businessmen hoped, in the interests of business.

It is plain why such a doctrine appealed to both merchants and kings. The merchants gained protection at home and new colonies and trade abroad; the kings gained the money and support necessary to consolidate their own power at home and wage successful wars abroad; both were able more easily to break the hold of the universal church upon the political, economic, and religious loyalties of their people. Medieval restraints upon the political power of the king were broken, the flow of money in tithes and taxes to Rome was stopped, religious injunctions against the building up of material wealth were denied, and Reformation religious reformers were, for the first time, able to break the yoke of Catholic doctrine and authority in a way that earlier reformers had not been able to do.

The new class structure of society. One of the most important results of Reformation economic developments was the shifting of power among the classes of society and the greater power achieved by the middle classes. In general, it may be said that the class structure of society in seventeenth-century Europe was somewhat as follows:

1. Rural classes:

- a. Nobility, who were large landowners and were recognized by the crown as a privileged noble class
- b. Gentry, who were also large landowners but not entitled to the social respect and prerogatives of the nobility
- c. Free farmers, or yeomen, who owned and worked their own small plots of land
- d. Renters, farm laborers, servants, and serfs, who worked for someone else

2. City classes:

- a. Merchants, bankers, and employers, who owned the greatest wealth and hired the most employees
- b. Small merchants and professional men, who had considerable independence and social respect
- c. Skilled artisans, who could command a certain amount of respect because of their skill

- d. Servants and menial laborers, who were often not free in their movements
- 3. Clerical classes:
 - a. Higher clergy, who were virtually as important as the nobility and wealthy merchants
 - b. Lower clergy, who traditionally had a position of respect and influence

There was, of course, some fluidity among the classes, but in general they were rather rigidly defined. The important point is that the rural gentry and the city merchant classes became much more powerful during the Reformation than ever before. In the process of change from a rural and agricultural economy to a commercial and city economy the lower classes were often so severely affected that the national state sometimes had to come to their aid by passing, as in England, a series of poor laws.

The commercial revolution and education. Just as the political changes of the Reformation profoundly affected education, so did the economic changes have repercussions upon educational organization and curriculum. The primary effect of the economic developments was to create for the schools a new group of students from the gentry and merchant classes. Giving their children the advantages of an education was one of the ways that the *nouveaux riches* could achieve respectability, and therefore the merchant classes poured their money into schools of all kinds. One of the easiest ways was to give money to schools already established or to help found similar kinds of classical and Humanistic schools. Another way was to demand new types of schools of greater practical and vocational use for a life of business. In some countries this end was achieved through voluntary gifts and subscriptions to the private schools; in other countries the merchant class used its newly won political power to pass laws creating state and city schools supported at public expense for the benefit of all children. The extremes at each end of the social scale were also not overlooked. The nobility were interested in setting up special academies to train their children in the proper courtly ways. Religious and philanthropic agencies set about giving free or charity education to those whose parents could not afford to have them educated. In any case the religious motive was nearly always combined with the political and economic in the efforts to provide education, especially among the Protestant churches of northern Europe.

The Religious Reformations

In 1500 the Catholic Church was still the universal European church in fact as well as in name, but during the sixteenth and seventeenth centuries a series of religious revolts backed by the military power of the national states and by the economic power of the middle classes gave rise to a series of differentiated churches that were destined to play an important role in the European and American scene of future generations. The fact that political and economic factors were involved does not mean that the religious reformations did not represent genuine changes in men's beliefs and attitudes. It means primarily that *successful* revolts were made possible by the political and economic changes already noted. In many ways the religious reforms represented a truly religious reaction against the growing secularism of the Catholic Church, and in other respects they represented a reaction of the more conservative rural attitude against the more secularized interests of city life.

Characteristics of the Protestant position. In general, the Protestant position put more direct emphasis than the Catholic position upon the Bible as the rule of faith and as the basis of religious and moral authority. Protestantism denied the claims of the Pope and Catholic clergy that they were the authoritative interpreters of Christian doctrine. In theory, the Protestant point of view stressed the right of the individual to gain salvation directly through faith rather than through mediation of an authoritative clergy. The ultimate conclusion of Protestantism would have been to allow individuals or small sects to interpret the Bible and believe as they pleased. However, this represents the more liberal and tolerant aspects of the Protestant revolt; in practice, all but the most radical of the Protestant sects became as intolerant in their persecutions of dissidents as the Catholic Church had ever been and used the civil power to enforce their convictions. In this respect the Protestant groups reflected the age of absolutism in which they appeared; indeed, they contributed in large part to the authoritarian quality of Reformation life.

The Protestants most often objected to reliance upon the sacraments, indulgences, pilgrimages, devotion paid to relics, and ritualism that the Catholic Church had insisted were the "good works" necessary for salvation. The Protestants tended to insist that the essential road to salvation is "justification by faith" alone, whereby the individual soul comes into direct communion with God. Along with this insistence upon faith alone, the Protestants emphasized the necessity for each person to establish the grounds of his belief by reading the Bible for himself. This meant that all true believers must know how to read the Bible. The demand for a widespread education thus arose from religious as

well as from political and economic motives. The conjunction of these motives in the national states of northern Europe and America gave rise to the conditions out of which a popular education appeared. Popular education was, indeed, something new under the sun, and its achievement has had far-reaching effects upon the history of modern culture.

Lutheranism in northern Europe. Martin Luther, who became the spearhead of attack upon the Catholic Church in Germany, tried for several years to achieve reform from within the church in his capacity as monk and university professor. When in 1520 Luther was threatened with excommunication by the Pope if he did not recant the doctrines of the Protestant position noted above, he broke with the Catholic Church and began his attempts to set up a new church. He wrote many pamphlets in both German and Latin, calling upon the nobility, clergy, and common people of Germany to throw off the shackles of Catholicism. At the famous Diet of Worms in 1521 called by Emperor Charles V, Luther again refused to recant and was outlawed by the emperor as well as by the Pope. Interestingly enough, the nationalist phase of this event is illustrated by the fact that the Spaniards and Italians hissed his speech and the Germans cheered. The papal legate reported to the Pope that during Luther's processional nine-tenths of the people shouted "Long live Luther" and one-tenth yelled "Down with the Pope." Luther was committed to the custody of the elector of Saxony, and during his stay at the castle of Wartburg he translated the New Testament into idiomatic German for the use of German-speaking peoples, another sign of the importance of the new national spirit as shown through the use of the vernacular language.

During the following decades Lutheranism became ever more closely reliant upon the civil authority of those German rulers who embraced Lutheranism. When a series of peasants' revolts broke out from 1524 to 1525 Luther sided with the rulers and urged that the peasants be forcibly put down. As a result, he lost the support of such Humanists as Erasmus who deplored the use of violence and found himself relying more and more upon the military and civil power of the states. This principle of close alliance between church and state received formulation at the Diet of Spires in 1526, when the rulers met to prevent further revolts of the peasants. In the face of the common enemy the rulers decided to declare an armistice on religious warfare and decided that each ruler should decide for himself and for his subjects which religion should be accepted. The famous doctrine of *cuius regio eius religio* (whose rule, his religion) was enunciated. Three years later at another Diet of Spires the Catholic majority decided that Lutheran rulers must tolerate Catholics but Catholic rulers were not obliged to tolerate Lutherans. Against this decision the Lutheran minority protested so vigor-

ously that henceforth they were dubbed "Protestants." Finally, at the Peace of Augsburg in 1555 the right of the state to determine the religion of its subjects was again accepted; but although the right to secede from the Catholic Church was won, the right of the individual person to choose his own religion was not won. The individual could legally be only a Catholic or a Lutheran, this decision resting in the hands of his ruler.

In the next hundred years the Lutheran religion alternately waxed and waned, until finally the Thirty Years' War (1618 to 1648) left Germany exhausted and her culture retarded a hundred years, though Protestantism was still triumphant in the states of northern Germany. The Thirty Years' War began with a revolt among Bohemian Calvinists against the Catholic Church and was continued with the help of the Danes under the leadership of Christian IV, the Swedes under Gustavus Adolphus, and the French under Richelieu and Mazarin. As a result of these bloody religious wars the efforts of Protestant rulers to break with the Roman Church and the Holy Roman Empire were crowned with success. At the Peace of Westphalia (1648) the foundations of the present national states of Europe were laid, and each state was recognized as completely sovereign and no longer as subject to the Empire. In the eyes of some historians the Peace of Westphalia is one of the most important treaties ever signed in view of the nationalistic wars waged since then, culminating in the World Wars of the twentieth century. Hitler's "new order" was in a real sense the effort to destroy the fruits of Westphalia in 1648 fully as much as it was aimed at the Treaty of Versailles in 1918. Since each ruler was considered as a sovereign power, Calvinist rulers were admitted to equality along with Catholics and Lutherans and given the right to choose the religion for their peoples.

Calvinism in western Europe. The Protestant revolt in Switzerland was led by Huldreich Zwingli, and John Calvin. Zwingli gained control of the city of Zurich and led an open revolt that resulted in his death, after which Calvin became the leader of anti-Catholic forces in Switzerland. First at Basel and then more fully at Geneva Calvin expressed his doctrines, and finally he wielded almost complete power over the lives of the people of Geneva. In 1536, when only twenty-six years of age, Calvin wrote his *Institutes of the Christian Religion* in an attempt to justify Protestantism to Francis I of France. Even more than Luther, Calvin tried to base all his writings on the positive authority of the Bible. Whereas Luther had said that some changes were necessary but that he would retain in his doctrine everything that was not expressly forbidden by the Bible, Calvin kept only those doctrines and rituals that are expressly authorized by the Bible. Therefore, Calvinists

did not use pipe organs or stained-glass windows in their churches because the Bible makes no mention of them.

In many other respects, Calvinism of all the Protestant churches represents the most extreme break with Catholicism. Calvin was made of stern stuff, rigid, intolerant, authoritarian, and an implacable foe of Catholicism. He put great emphasis upon the doctrine of predestination, a doctrine more or less present in all Reformation creeds, but he made of predestination a big stick with which to force reluctant worshipers into line. According to Calvin, all men are divided into two unchangeable classes: the saints whom God has chosen from the beginning of time to be saved, and the sinners whom God had irrevocably chosen for eternal damnation. Since no one can tell before death whether or not he has been elected to be saved, it is incumbent upon all to live an absolutely moral and upright life. Modern men are likely to think that so rigid a conception of the human lot would lead to fatalism, but Reformation men under the influence of Calvin were led to the strictest modes of life in the hope that by complete adherence to the faith, a supremely correct life, and a minute fulfillment of religious duties they would prove themselves to be of the elect. Failure to comply meant, of course, that there was no hope either here or in the hereafter, and no thoughtful man could overlook the awful possibilities of eternal punishment.

The political import of Calvinism was subordination of the state to the church. Whereas Luther's reliance upon the state had resulted in the church becoming an arm of the state, Calvin felt rather that the state should be considered the political and civil arm of the church to do its bidding and carry out its injunctions. The political term for this doctrine is "theocracy," literally "the rule of God." Since God is not present in person on this earth, the true church (Calvinism) must rule according to God's unchangeable, authoritarian laws. Theocratic rule meant that the Calvinist church leaders must exert strict control over all the affairs of men, economic, political, and social as well as religious. Education, of course, was one of the facets of institutional life included in this range of control. Discipline was a primary necessity of life, for the church could not afford to let affairs fall into the hands of sinners who were outside the pale. Thus, a church consistory, or court, was set up to enforce the commands of the church, to investigate the personal lives of everyone, to punish those who were not leading godly lives, and to censure harsh creditors, usurers, monopolists, and tricky or light-fingered merchants. The influence of Calvinist theocracy can be seen clearly in the New England colonies (see pages 281 to 291) and in many of the puritanical aspects of American life.

Calvinism spread from Geneva through Switzerland into Germany,

where it was known as the German Reformed Church, into France, where its followers were known as Huguenots, into the Netherlands, where it was known as the Dutch Reformed Church, to England among the Puritans, and to Scotland among the Presbyterians. Calvinist immigrants of all these nationalities came in great numbers to America. In France the "wars of religion" in the sixteenth century between Huguenots and Catholics killed off an untold number of persons, until Henry IV of Navarre issued the Edict of Nantes in 1598, giving civil and religious rights to the Huguenots. This respite lasted until Richelieu came into power. He took away some of these civil rights, and finally Louis XIV revoked the Edict of Nantes in 1685, causing great Huguenot emigrations from France to other countries and especially to America.

The Calvinist often looked upon himself as the aristocrat of the Protestants. He was typically an effective, energetic, and aggressive fighter, supremely confident that God was on his side, and more often than not an earnest, hard-working artisan, merchant, or professional man. The Calvinist's success can be seen in the part he played in the Bohemian revolt, the Huguenot wars, the Netherlands' revolt against Philip of Spain, the Presbyterian revolt against monarchy in Scotland, and the Puritan revolts in England and later in the American Revolution. Integral to all the Calvinist's success was his great belief in the value of education and his insistence that education be made available to all.

Anglicanism and Puritanism in England. The Reformation in England produced no single great religious and evangelical reformer such as Luther or Calvin. Two hundred years earlier Wycliffe and the Lollards had made a stand, but the time had not been ripe for revolt. The Reformation in England rather took place from the top down as successive kings and queens took the initiative in overthrowing or restoring the power of the Catholic Church. In these efforts Parliament sometimes supported the king and sometimes opposed him. In 1534 Henry VIII caused Parliament to pass the Act of Supremacy, which recognized the king as the sole head of the church in England. From a religious point of view the newly formed Church of England was a change more in name than in fact, for doctrinal changes were not marked. Priests were allowed to marry; church services were in English instead of Latin; the Bible was translated into English by Tyndale; and the English Book of Common Prayer (containing the Creeds, Ten Commandments, Lord's Prayer, and much liturgical material) was published as a beginner's church book or primer and subsequently became an important schoolbook. Henry VIII took over the land and wealth of the monasteries that remained as outposts of loyalty to the Pope and used the money primarily to build up his own power as king.

After Henry VIII, Protestantism had varying fortunes in England. It continued to grow strong under Henry's son, Edward VI, whose affairs were run largely by Cranmer, the archbishop of Canterbury, but it received a setback under Mary, Henry's daughter by Catherine of Aragon, whom Henry divorced at the time he broke with the Roman Church. Mary restored Catholicism and Roman control of the church, expressed allegiance to the Pope, caused Parliament to repeal the Act of Supremacy, dismissed Protestant clergymen and priests who had married, abolished the English Book of Common Prayer and restored Latin as the language of the church, executed such leaders as Cranmer, and forced many Protestant churchmen to flee from England. These exiles were welcomed by the Calvinists of the Netherlands and Switzerland, and when they returned under Elizabeth they brought Calvinism back to England with them, laying the foundation for Puritanism.

Under Elizabeth's long reign from 1558 to 1603 the so-called "Elizabethan settlement" was achieved, whereby the Church of England became the state church and enough reforms were made to satisfy large numbers of Englishmen. In effect, the Church of England departed less in doctrine, organization, and form from the Catholic Church than did any other Protestant church. The main point of interest here is that the religious settlement was enforced by the authority of the state. The Calvinist Puritans grew in power, for they felt that the Church of England had not gone far enough in reform and wished to "purify" it further of its remnants of Catholicism.

When the Stuart kings, James I and Charles I, came to the throne, they persecuted the Puritans and other nonconformists. Outraged by the attacks of Archbishop Laud the Puritans increased their demands for religious liberty, and many fled from England to America. Turning the tables under the Commonwealth, the Puritans were not sorry to see many Anglicans emigrate to America. With the coming of William and Mary to the throne in 1688, the Church of England was firmly established in England as the state church but with toleration of dissident Puritans. The successes of Calvinist Presbyterianism in Scotland left only Ireland as a stronghold of Catholicism in the British Isles.

The Catholic Counterreformation. Despite all the space devoted here to the Protestant reformations, it should constantly be borne in mind that the Catholic Church remained by far the strongest single church in Europe. Southern Europe, France, and southern Germany remained basically loyal to the Catholic doctrines, for the Roman Church had many great advantages in addition to the custom and tradition that kept people in the centuries-old fold of their fathers. The Catholic organization, with a single head in the person of the Pope and a well-organized hierarchy of officials who looked to the head for authority,

aided the church immensely when it faced the often scattered efforts of several struggling Protestant groups. Furthermore, the church made many effective doctrinal as well as military efforts to stem the tide of Protestantism. In 1537 an important report (the *Consilium delectorum cardinalium*) on necessary reforms in the church was made by a group of cardinals. This report deplored the fact that men of worldly interests were admitted to the clergy, criticized the laxity of the monastic orders, the easy dispensations, the selling of indulgences, and the morals of Rome, and urged that better educational facilities be provided throughout the church.

In 1542 the Court of the Inquisition in Rome began to decide questions of doctrine, to try suspected heretics, to punish those convicted of heresy, and to keep a watchful eye upon spoken and published statements of doctrine. The Pope wanted the Inquisition to work in all countries, but its effectiveness was often blocked by the kings or powerful bishops of northern Europe. However, Spain conducted it under state control with peculiar pitilessness, secrecy, and terror. Schools and universities in Spain and Italy were kept under close watch, and Humanism and liberal ideas in religion, science, and scholarship were set back for generations in comparison with intellectual progress in other countries. It should be said, however, that the procedures and attitudes of the Inquisition were not confined to the Catholic side; Calvin, for example, was fully as terroristic and authoritarian in his efforts to stamp out opposition to his ideas. His persecution and torture of Servetus were as bloodthirsty as any of the acts of the Inquisition. Authoritarianism and intolerance were characteristics of the times.

Another effective counterattack by the Catholic Church was the Council of Trent, which met for 25 different sessions in the middle years of the sixteenth century. The council met at Trent in the effort to prevent the Germans from breaking away as the English had done. Despite the presence of a liberal party who wished to reconcile the Lutherans by making radical doctrinal changes, the Pope's party won, and the decrees on doctrine and matters of belief were restated without breaking from traditional Catholic positions. In the end, full authority in matters of doctrine was given to the Pope; this reversed the conclusion of the Council of Constance, which had said that the church council was supreme. Many decrees were also passed, aimed at reforming the abuses listed in the report of 1537 and including plans for the reform of education. The Index was set up to publish a list of books harmful and prohibited to faithful Catholics, to approve acceptable books, and to censor parts of books that verged on heresy. The Index continues in existence today.

Perhaps the most effective counterreformation agency of all, from the point of view of education, was the organization of the Society of Jesus under the leadership of Ignatius Loyola. The Jesuits rejected the monastic type of church order and became in effect a militant order to war against heresy and win back ground, both geographical and doctrinal, lost to the Protestants. Loyola knit his organization into a highly centralized and effective agency, with strict eligibility tests enforced for new members. As preachers, as missionaries, and as teachers the Jesuits ranged over the whole world, setting up their missions and schools. They became eloquent preachers and untiring missionaries for converting the heathen in the Far East and in the Americas as well as in Europe. They established an extremely efficient system of schools for training future leaders to carry on the work of the church. From the beginning, Loyola was convinced of the necessity of superior educational training as an effective religious weapon against Protestantism. The Jesuits became so successful, so subtle, and so facile that they gained the reputation of upholding the doctrine that "the end justifies the means." For this they met the opposition of other church movements, notable among which was that of the Jansenists, who were imbued with a desire for stern moral discipline. Because of their great emphasis upon predestination and the total depravity of man, they represented something akin to Puritanlike reform within the Catholic Church. In their contests with the Jesuits the Jansenists came off second best and were themselves declared heretics, but they exerted an educational influence far beyond their numbers and length of life.

As a result of the various agencies of the Catholic Counterreformation in the later sixteenth and seventeenth centuries, the Protestants gained no new victories and captured no new territory. In fact the Catholics won back Bohemia in the seventeenth century. The church was successful in reorganizing without surrender and without compromise. A new interest in education was expressed through several other teaching orders, such as the Fathers of the Oratory and the Institute of the Brothers of the Christian Schools, in addition to the Franciscan and Dominican friars, whose origin goes back to the Later Middle Ages. Such orders were extremely influential in carrying the religious doctrines of Catholicism and the ideals of Catholic education to the Americas, where they have continued to the present time.

THE IDEAS MEN LIVED BY

One cannot but be impressed with the tremendous importance of the religious creeds during the Reformation. They acted as rallying centers for the driving loyalties of men and gave the people the prime

motives for living, fighting, and dying, a *raison d'être* something like the force of modern political and economic creeds. So much of Reformation culture depended upon religion, that it cannot be minimized, and its effects lie deep within the loyalties and heart of American life. Yet, during the course of the Reformation the political loyalties of nationalism began gradually to play an ever larger part, until then as now in most countries the patriotic sentiment had become so inclusive that persons of different religious faiths could join together in a common national cause to fight against nations that represented in large part their own religious beliefs.

From the modern viewpoint one of the most important aspects of Reformation culture is the authoritative character of Reformation religious faiths. They were held so confidently by the people of the Reformation because it was widely believed that the religious leaders of each sect had special insight into the supernatural, beyond which there was no appeal; consequently, the word of the religious leaders was taken to be the word of God. From ancient times down to Hitler's day the ruler who wishes his word to be law has proclaimed that he rules by divine right. Another reason was the belief that moral conduct depended upon religion: a man could not be considered good unless he were religious. A third reason was the further belief that civilization would fall if dissidents were allowed to argue as they pleased. All religious sects tended to allow little or no toleration of what they termed heresy.

In spite of these convictions of the authority of religious beliefs, however, the Reformation saw the rise of doubt, skepticism, and inquiry concerning the ideas that men lived by. The mere fact that the leaders of each religious sect battled so vigorously against unorthodox beliefs showed that doubters and unbelievers were present. By the end of the Reformation the sheer physical destruction of the religious wars had led many to wonder whether perhaps all religious doctrines were wrong in some respect and whether a new way to truth could be found. The impact of new geographic horizons and the knowledge concerning how other peoples lived and thought led many to reexamine their own cultures.

Most powerful of all, in the long run, was the growing respect for science and the scientific spirit. Despite the authoritarianism that was dominant in the Reformation, the growth of rationalism and liberalism was being nurtured in a few fertile areas. Although no complete victory was won, the skeptic, the scientist, the rationalist, and the heretic were freer and safer in 1700 than they had been a hundred years earlier. A growing reliance upon human reason and science had, of course, tremendous implications for education from the lowest to the highest levels.

Christian Theism

Christian world view. The dominating conceptions of the world, of man's place in the universe, and of man's destiny remained throughout the Reformation period closely identified with Christianity. Despite the quarrels between Protestants and Catholics, neither departed substantially from the medieval conception of God, the universe, and man's salvation. Although this may not be entirely accepted by adherents of either group, it does seem clear that there was a basic agreement among Christian Catholics and Christian Protestants that linked them closely together, as against the world view of an empirical science that has since developed. Both accepted a universe created by God in which man played a role assigned to him by God. Both accepted the distinction between a supernatural world and a natural world, of which the supernatural, or spiritual, world was by far the more important.

Human nature. Both Catholics and Protestants believed that man's nature is essentially dualistic, that is, made of spiritual elements and material elements, a spiritual soul and a material body, of which the soul is, of course, the more important. Calvinists and Jansenists tended to place more emphasis upon original sin, but this is largely a matter of emphasis, for most Christians of the day would have denied a suggestion that man is inherently good or that he is born neither good nor bad. Both Catholics and Protestants agreed that the ultimate judgment of man's success upon this earth does not come until the next world; being good here and now is necessary for the glory of God and to escape eternal punishment. Both would have joined against a doctrine that preached that man's ultimate justification comes from the social good that he is able to accomplish here and now.

Learning and knowledge. Both Catholics and Protestants believed that knowledge and truth are fixed and revealed to man from supernatural sources; both agreed that man's primary aim in education is to arrive at a true knowledge of God's laws and commandments. If the Protestants objected to the educational system of the Catholics, their remedy was primarily to set up a system of language study whereby they could read the word of God for themselves, unfettered by the commentaries and interpretations of Catholic scholars. Knowledge of the physical world was considered by both as far less important than knowledge of the spiritual and moral world. The learning process was conceived by both Catholics and Protestants as primarily a matter of bringing to light the innate ideas with which God has endowed each person. This was to be done most effectively by a kind of mental and moral discipline and achieved principally through the study of language and literature in which reading and memorizing were paramount. Both

Catholics and Protestants were in large part opposed to the implications of much of the new scientific investigation. The burning of Giordano Bruno by the Catholic Church in 1600 and the forced abjuration of Galileo can be matched by Luther's condemnation of science as "That silly Little fool, that Devil's bride, Dame Reason, God's worst enemy."

New Secularism of Science

Modern man does not need to be told about the importance of science in the world of today. He sees its importance on every side, but he sometimes does not realize that the foundations of modern science were being laid in the sixteenth and seventeenth centuries, often against great odds of intolerance, antagonism, and persecution. Some historians are inclined to believe that the scientific developments of the Reformation were the most thoroughgoing revolutions that occurred in that age of many revolutions. However that may be, the faith in science was growing despite opposition even though the balance was not tipped in its favor until the nineteenth and twentieth centuries. No single reason can explain why interest in science increased in the Reformation; it was integrally bound up with the political, economic, and religious developments already mentioned.

Philosophy of science. One of the most outstanding proponents of science in Reformation times was Francis Bacon, not a scientist himself but a master of popularizing the value of science through his many writings and his influential political position as lord chancellor in England. Bacon's real influence lay largely in his ability to set forth the claims of the scientific method in an eloquent, persuasive, and effective style. Bacon felt that men were too enslaved by superstitions and tradition, relied too exclusively on Aristotle and Scholastic philosophy, and were too engrossed in the niceties of words and language rather than in the knowledge of nature. His remedy for these defects of thought and education was a thoroughgoing reliance upon science and scientific method. His enthusiasm for what science could do helped to spread the gospel of science and the possibilities of the scientific method. In his *Dignity and Advancement of Learning* Bacon surveyed and defended the scientific aspects of learning. In his *New Atlantis* he let his imagination revel in describing a Utopia on an imaginary South Sea island where the aim of society was to increase man's knowledge of nature and where scientific research had developed unbelievable machines that flew in the sky, skimmed under the water, kept perpetual time, and conveyed music afar.

In his *Novum Organum (New Method)* Bacon described in detail the inductive, or scientific, method whereby scientific knowledge could be obtained. The scientist should observe nature, collect a wide range of

facts, generalize from these individual facts to their common qualities, and express these likenesses in general formulas. Today Bacon would be criticized for a thoroughgoing attachment to induction that led him to record masses of useless data just because he observed them and for a neglect of the supreme importance of mathematics in modern science. Nevertheless, his insistence that knowledge arises out of experience rather than through traditional authority and his perception of the use of a controlled method of investigation were of supreme importance. He was not the first to urge these procedures, but he helped enormously to make them respectable despite the jibes and sneers that were earned by the scientists of the day for trying to extract sunshine from cucumbers and build houses from the roof down when any sensible person knew this was impossible.

As profound as any revolution that has occurred in human history was the change in world view that gradually emerged from the scientific investigations of the Reformation. It took a long time for the implications to be felt; but when they were realized, the whole matrix of human outlook was altered by the conception of a heliocentric universe. The Christian tradition had conceived of the universe as centering in the earth, with the stars and sun surrounding it, all originally created by God for His own purposes. However, when Copernicus, Kepler, Galileo, Brahe, Bruno, and Huygens had completed their scientific investigations, the outlines of a limitless universe with the sun at the center and with the earth as merely one of many satellites burst upon the consciousness of men with terrific force.

All the churches, Catholic and Protestant, viewed such a conception with alarm and took active steps to combat it, for they saw the world as a safe place made especially for man paling into insignificance before the immensity of the universe. Copernicus died before his views were published; Kepler was denied hospitality by Lutheran theologians; Galileo was forced by the Catholic Church to abjure his writings; and Bruno was burned at the stake for his. It has often been remarked that modern scientists began by probing the heavens, at the farthest distance from man, and only relatively late aspired to study man himself. It may be that the cultural situation of the times in which science grew up had more than a little to do with this process.

As the invention of the telescope had aided the study of astronomy, so was modern physics born during this age with the help of the newly invented barometer, air pump, pendulum clock, and thermometer. The importance of designing instruments that could measure more accurately than the unaided human senses cannot be overstressed. Technical improvements both aided and resulted from the discoveries of science. Man could observe better what he had already observed; he could

observe things that he could never observe before; he could make precise measurements; and he could control conditions of experiment. Gilbert studied magnetism and coined the word "electricity," Boyle formulated his famous law of gases, and many others made great strides in the study of optics and mechanical principles. Geographical horizons were also extended by the voyages of the explorers and the tales that were told of new lands and new peoples with strange customs and beliefs. Most important, too, were the possibilities opened up by the tremendous advances made in mathematics, so essential for scientific measurement and computation. The sixteenth and seventeenth centuries saw the development of decimals and logarithms and improvements in algebra, the calculus, the theory of probabilities, trigonometry, and analytical geometry.

Materialism versus idealism. The most extreme result of the application of the findings of science to new conceptions of a world view was the philosophy of materialism. Thomas Hobbes in England and Pierre Gassendi in France began to develop the philosophy of materialism to the point where they claimed that the universe was nothing but a huge machine operating according to purely mechanical laws. They saw nothing in nature but matter in motion; everything could be explained in material terms. Materialism thus represented the most extreme reaction against the Christian idealistic world view that had posited the importance of spiritual ideas as the basis of the universe. As might be expected, both Catholic and Protestant Christians were violently opposed to materialism, which gained only a few adherents among the intellectual classes until the eighteenth century, when it became somewhat more popular.

Descartes and dualism. Much more effective in the Reformation and in later centuries was a kind of compromise called dualism, worked out in considerable detail by René Descartes, the great French philosopher and mathematician. Just as modern science continued along the lines laid down by seventeenth-century scientists until the epoch-making discoveries of relativity in the twentieth century, so did philosophy continue to struggle with the problems defined by Descartes until the development of pragmatism in the later nineteenth and early twentieth centuries. Descartes was able to incorporate into the traditional world view of his time much of the results and methods of the new science, but he was also concerned not to antagonize the prevailing theology too much.

In his attempt to harmonize theology and science, Descartes reasoned that the universe is made up of two absolutely separate and distinct substances, namely, mind and matter. Mind is the spiritual substance by virtue of which thinking is possible; mind is completely independent

of matter, free from mechanical laws, and free to make choices. Matter, on the other hand, is the material substance consisting of the physical world and made up entirely of material objects in time and space and moving according to fixed mechanical laws. Mind is a free agent, but matter is a machine. Both mind and matter are created by and controlled ultimately by God, but they cannot act upon each other. Thus, Descartes left mind to theology but made way for science by assigning matter to it. Western education has virtually been built upon the assumptions of dualism, and for long educators have believed that education properly should devote itself to mental and spiritual activities rather than to material and practical activities.

Human nature. Conceptions of human nature likewise underwent a change in the Reformation. In anatomy and medicine William Harvey was making enormous strides in discovering what the structure of the human body is like and how it functions. Others like Hobbes and Gassendi were applying their doctrines of materialism to human nature, saying that the body, being matter, works exactly like a machine according to mechanical laws and that the so-called "mind" is not a different sort of thing but merely another, more refined, case of matter in motion. The mind or consciousness is merely the body in motion. Such materialists were attacked as atheistic and in league with the devil, for they obviously denied the existence of a soul.

In this dispute, again, Descartes came to the rescue with the doctrine of dualism, which ultimately came to satisfy most people. He asserted that, like the universe, human nature is made up of both mind (or soul) and matter (or body). Man's mind partakes of the mental substance and thus can think, exert free will, and control the body, whereas the body partakes of the material substance and thus is a machine obeying scientific and mechanical laws. The dualistic conception of human nature conceded that the human body is a proper object of scientific study but again reserved the human mind or soul for spiritual and higher scrutiny. Education has been viewed by most persons since then as being properly devoted to the higher cultivation of the mind and soul rather than to the lower cultivation of the body.

Learning and knowledge. With regard to the learning process somewhat the same kind of development took place. Materialists like Hobbes were inclined to say that man learns about the external world through the senses of seeing, tasting, touching, hearing, and smelling. Knowledge is thus built up through experience coming to the body through the senses. This doctrine, often called empiricism, stemmed from the scientific methods of observation and testing of the natural phenomena of the external world.

Idealists were inclined to say that man learns best through his mind or reason, because sense experience is limited to sensory knowledge of natural objects, whereas the reason can achieve permanent and absolute knowledge and truth. This conception is usually called rationalism because it assigned to human reason a more important place than that of the senses in getting at the real knowledge that lies behind everyday experience. Because of his great reliance upon mathematics as one of the best examples of achieving permanent truth, Descartes tended to support rationalism, as did other such great philosophers as Spinoza and Leibnitz, who felt that reason alone can give universal and certain knowledge. Religious thinkers were likewise inclined toward rationalism, although they also tended to say that human reason is subordinate to religious faith; in any case, reason to them provided a more acceptable way to learn than did sense experience.

Education, especially at the higher levels, has long been considered to be rationalistic in aim and content. Rationalists in education tend to stress the importance of mathematics, language, and literature because these studies, they say, develop the reason more effectively than does science, which, after all, depends upon sense experience. Up to the latter part of the seventeenth century, rationalism was in the ascendancy, often closely allied with religion, but Hobbes and Bacon had fired the opening guns for empiricism, soon to be supported by Locke and by Hume and other eighteenth-century thinkers. In any case the claims of human reason as against the claims of religious faith, revelation, mysticism, authority, and tradition were once more being staked out in the Reformation. They were settled upon and developed with great enthusiasm during the eighteenth-century Enlightenment.

The Social Role of the Arts and Sciences

Scientific knowledge and instruments. Some mention has already been made of the scientific importance of the development of such new technical tools and instruments as the telescope, microscope, thermometer, barometer, pump, and clock. These all made scientific discoveries easier and more accurate, but other technological instruments also had far-reaching social effects. Navigation instruments and the science of shipbuilding aided the geographic discoveries, and the opening up of new lands and the availability of new products stimulated in turn the desire to improve shipping and manufacturing. New methods of mining, farming, stock raising, cloth-making, and manufacture of finished goods were under way, laying the groundwork for the far greater developments of the eighteenth and nineteenth centuries. The refinement of gunpowder, firearms, artillery, and fortifications increased the effectiveness

of armies, and national rivalries in turn stimulated the desire for ever more effective instruments of war.

The invention of movable type in the fifteenth century was improved upon until cheaper printed matter brought closer the possibility of a wider literacy and dissemination of knowledge. The growth of a middle class and a larger reading public stimulated in turn the demand for the publication of books on an ever-widening range of topics. Inasmuch as the universities seemed reluctant to take up the new science, the growing interest in scientific knowledge and its dissemination took place in scientific societies outside of the universities. These societies, such as the Royal Society in England and the Academy of Sciences in France, provided the principal means of applying science to social affairs until the universities of the late eighteenth and nineteenth centuries awoke to the tremendous social possibilities of scientific knowledge.

Classical languages and literature. Despite the tremendous strides made in Reformation science, Humanism remained the dominating factor in scholarship and education. The Renaissance had made Humanism so important in education that it resisted all encroachments from science in secondary and higher education. Humanism was so strong, also, that throughout the Reformation period Latin remained the language of many of the great scientific as well as religious writings. The preoccupation of the schools and universities with the Latin and Greek classics not only shows the sustaining force of Humanism but explains in large part why science, the vernacular languages and literature, and the arts and music played so little part in the organized secondary and higher education of the Reformation.

Vernacular languages and literature. A narrow study of the curriculum of Reformation schools and universities would not reveal the tremendous strides being made in the various countries of Europe toward developing national languages and literature of supreme importance. The history of education, however, must note the developments in these fields occurring outside of formal educational institutions in order that the later battles between the Ancients and the Moderns do not come as a surprise. Here is a singularly effective example of how the traditional schools lagged behind the culture of the day. By the end of the Reformation period the vernacular languages were regularly used in courts, business, and the market places of Europe. Partly as a result of the groundwork laid by the development of vernacular languages (as noted in earlier chapters) and stimulated by the growing consciousness of nationality sponsored by the wealth of a new middle class, the vernacular literatures of England, France, and Spain received tremendous impetus in the Reformation period.

This movement is typified, among many others, by Bacon, Hobbes, Edmund Spenser, Marlowe, Shakespeare, Ben Jonson, Bunyan, Milton, and Dryden in England; by Descartes, Ramus, Corneille, Racine, Molière, and La Fontaine in France; and by Cervantes in Spain. Here were developing some of the masters of prose, poetry, and drama, who form a nucleus of present-day study in the modern literatures of England, France, and Spain but who were almost totally neglected by the schools of their own day. French began to replace Latin as the international language of court and society, and the founding of the French Academy in 1629 stimulated the purifying of French as a standard language. The vernacular languages did enter the elementary schools but primarily through the religious books, prayer books, and catechisms of the Protestant churches. These were the outgrowth of the English translation of the Bible by Tyndale, of the King James version, and of the German translations of Luther. Printing was making eventually possible the wider study of vernacular language and literature for secular as well as religious purposes in schools and universities. When the political states realized the importance of a ready knowledge of a common language among the great masses of people and when the economic advantages of a knowledge of vernacular language for business purposes were realized, the study of vernacular languages and literature came into its own in the eighteenth and nineteenth centuries.

Art and music. Remarkable advances in art and music paralleled the advances in science and vernacular literature. Patronage came largely from the upper classes, from merchants trying to establish themselves in society and seeking to be known as patrons of the arts and from the nobility and courtiers vying with the courts of other lands for a reputation of splendor and munificence. Architectural forms began to move toward the "baroque" style, characterized by much ornamentation not integral to the design or function of the building. The trend in painting toward more realistic representations of persons and landscapes showed the increasingly secular tone of Reformation society. Drawing heavily upon the Italian Renaissance and yet each developing unique qualities of his own, the outstanding masters of the Reformation were Rubens and Van Dyck in Flanders, Hals and Rembrandt in the Netherlands, El Greco and Velásquez in Spain, and Dürer and Holbein in Germany.

In like manner the music of the Reformation made tremendous strides in technique and in the development of new instruments and new musical forms, again largely under the patronage of court or merchant. New forms of group singing, the opera, the oratorio, the violin, and keyboard instruments laid the foundations for the great musical developments of the eighteenth and nineteenth centuries. In these artistic manifestations, the formal schools and universities took little interest. Church music,

hymns, and songs began to enter the elementary schools set up by the Protestant states, but little or none of the secular music of the times was allowed. Indeed the Protestant groups, especially Lutheranism and Calvinism, felt that the secular music of the times, like the secular literature and science, was not properly part of an education whose prime aim was the saving of souls and the discipline of the mind.

Here, again, the religious factor was closely connected with the doctrines of rationalism, which saw the educative process confined to those "intellectual" studies of mathematics and language which would be not only good discipline for the mind but also safe for the spiritual development of the young. It should be said, however, that secular art and music and even science were of great interest to the aristocratic classes, whose social and leisure activities were enhanced by them. In general, Reformation education reflected Reformation culture but only a part of it. The hand of Humanism, now supported by the hand of religion, continued to direct the basic educational program as it has come down to us.

CHAPTER X

EDUCATION IN REFORMATION EUROPE

The organized educational efforts of the Reformation reflected in greater or lesser degree the various cultural movements of the Reformation period. The most obvious instances were doubtless revealed in the religious and Humanistic character of Reformation schools, but education also showed the results of developments in political and economic institutions and ideals, science, and the vernacular languages. However, although it seemed at times as if Reformation education were largely at the mercy of cultural forces, it was actually not merely the handmaiden of the cultural forces at work but proved to be a strategic and guiding factor in shaping the kind of world in which we live. Some educators began to realize that education could be a determining factor in modern civilization, along with political, economic, religious, or scientific factors.

ORGANIZATION AND CONTROL OF EDUCATIONAL INSTITUTIONS

The first effects of the Reformation wars were doubtless harmful to the educational institutions already in existence. The ravages of war and persecution meant great destruction of the plants and endowments of educational institutions. The middle of the sixteenth century saw a great depression in education, and the first half of the seventeenth century, especially in Germany during the Thirty Years' War, witnessed even worse conditions. However, as wars decreased and as longer periods of peace were achieved in the various states of Europe, the outlines of educational order and organization began to appear. The Catholic schools and universities that had been destroyed by war or seized by Protestant sects were reestablished and reformed along somewhat new lines, and in the Catholic countries the educational institutions themselves went through considerable change at the hands of the Catholic Church. The outlines of the modern European systems of education were being drawn along national state lines.

Foundations of Modern Organization

The two-track system of universal education emerges. Although much of the effort of Protestant reformers was directed toward providing wider opportunities for education among the masses of the people, this does not mean that completely democratic conceptions of education were envisaged. The class structure of society was deeply ingrained in all the countries of Europe. The principal change contemplated was that some opportunity for education should be given to the lower classes as well as to the upper classes, but the two classes were to receive different kinds of education. In general, the effect of the Reformation was to crystallize the distinction between a vernacular elementary education for the lower classes and a classical secondary education for the upper classes.

The demand for common schools for the masses of the people met with little response among the upper classes and even from some of the Protestant reformers. Luther and Calvin were both much more interested in the classical type of secondary education than they were in vernacular education, despite their appeals for the latter type of school. Anglican leaders in England and Catholic leaders in France were in general more willing to expand and reform secondary education than they were to provide common education for the masses. The traditional aristocratic conception of medieval and Renaissance education still held the predominating position in Reformation ideas of education.

Suggestions for a more democratic organization. However, the roots of a more democratic conception of education were being nourished. In Luther's earlier statements he vigorously urged that all children, rich and poor, boys and girls, should be educated. Calvin and his followers in the Netherlands, Scotland, England, and America envisaged universal education for all. Knox in Scotland, Puritan educational reformers in England, and Dutch Reformed leaders in the Netherlands all proposed and in some respects were able to achieve a measure of universal education during the Reformation period. Perhaps the most democratic proposals of all were stated by the Moravian leader, Comenius, who urged the establishment of a complete "ladder" system of schools reaching from the lowest levels to the university. Despite the strength of the aristocratic conception in practice, the democratic conception was being stated in theory here and there in preparation, as it were, for the realization of the democratic ideal that was achieved in the late eighteenth and nineteenth centuries.

It should be pointed out that *universal* education for all is not necessarily identical with *democratic* education, in which equal opportunity is afforded to all. The Reformation made great strides toward provid-

ing a universal education in which everyone was given some schooling, but the lower classes had one type of education and the upper classes another. Achievement of a democratic education in which everyone is looked upon as equally entitled to the kind of education from which he can profit most was only occasionally contemplated, even on paper. State control of schools to provide universal education became a typical European product, but state control of schools to provide not only universal education but also democratic education was achieved first in the United States in the nineteenth century and to a lesser degree in some of the European countries in the early decades of the twentieth century.

Education for girls. In several quarters proposals that girls should be educated as well as boys were heard during the Reformation. As a part of their general conception of universal education for religious and political purposes, Luther, Bugenhagen, and, to a lesser degree, Calvin urged that girls be educated. Dutch schools apparently were far in advance of any others in actually providing opportunity for girls to attend the town schools in the Netherlands. The organization of Catholic teaching orders of nuns, notably the Ursuline Sisters, gave evidence that the Catholic Church was also concerned to provide greater educational facilities for girls. In France the second wife of Louis XIV, Mme. de Maintenon, established a school for upper-class girls at St. Cyr, and Archbishop Fénelon made notable written proposals for the education of girls to equip them appropriately for the duties of household, society, and church. Insofar as the education of girls actually widened the range of educational opportunity, it helped to contribute to the spread of universal education.

Civil Control by State and City

One of the most far-reaching and profoundly important results of the Reformation was the growth of civil control of education as opposed to private and religious control. In the sense that "public" education means civil control the movement toward public education was begun during the Reformation as the churches and states came into close conjunction. However, as noted above, public education is not necessarily democratic education. Public education through civil control can be universal, compulsory, free, and supported by taxation without being democratic. Public education can be instituted by monarchies, by state churches, and by dictators for their own purposes, just as it can be instituted by democracies for the welfare of the whole people. The autocratic states of Europe moved toward public education during the Reformation, but this must not be confused with democratic education, which did not emerge until the states themselves became democratic. It is true, nonetheless, that universal public education helped in some respects

to provide the seeds for democratic political arrangements when the time was ripe.

Civil control in Germany. The stimulus to civil control of education in the Reformation often stemmed from a religious interest. Under the impact of political, economic, and religious events in Germany, for example, the church became closely allied with the state and became in effect a part of civil administration, for religious leaders were often appointed by the head of the state. Thus, under the stimulus of Luther and his followers, Bugenhagen and Melanchthon, the Protestant rulers were urged to study their schools and to reform them by civil authority. Reorganization of schools often accompanied the transformation of the Catholic churches into Lutheran churches. As a result of surveys conducted by Melanchthon and others, several of the German states and free cities issued civil codes for the conduct of schools. Only one or two of these can be mentioned.

The school code of Württemberg in 1559 was one of the most far-reaching, providing for the establishment of vernacular elementary schools to teach boys and girls reading, writing, arithmetic, music, and religion. These schools were to be established in every village and to be taught by the church sexton. Latin secondary schools were also to be set up to train boys for leadership in the church and state through preparation for higher religious schools and eventually the university. Other states followed the Württemberg code, notably Saxony in 1580. Another important code was issued by the state of Saxe-Gotha in 1642, providing for compulsory attendance, larger salaries for teachers, free textbooks, supervision of instruction, a graded class system, and more realistic studies. Among the important cities that also reorganized their schools by civil authority were Brunswick, Weimar, Nuremberg, Hamburg, Wittenberg, and Strasbourg. In the seventeenth century several states enacted compulsory-attendance laws, including Württemberg and Saxony.

Civil control in Calvinist lands. Calvin's theocratic theory according to which the state is essentially an arm of the church stimulated the growth of civil control in Calvinist countries. In Geneva, Switzerland, the state set up religious schools and enforced attendance for the benefit of the Calvinist Church. In the Netherlands, when the Dutch Reformed Church came into power, it proceeded to adapt the town schools already in existence to its religious purposes and to provide for extension of schools to wider areas. The Synod of the Hague in 1586 provided for the establishment of schools in the cities, and the Synod of Dort in 1618 provided for the establishment in all villages of schools under the control of civil magistrates, to give free instruction to poor children. In Scotland the General Assembly of the Presbyterian Church recom-

mended to the Scottish Parliament as early as 1560 that schools should be set up in every parish. After the Presbyterian Church was made the state church in 1592, Parliament passed in 1646 a law providing for schools in every parish, but the strength of the nobles prevented the realization of this aim for many years.

Civil control in France. In the seventeenth century the French States-General clearly called upon the church to establish schools in all towns and villages and to institute compulsory education. France, however, had followed the line of allowing the church to conduct schools without much civil control. In the wars between Catholics and Huguenots it was, among other things, the zeal of the Huguenots to establish schools and colleges along Calvinist models that aroused the ire of the Catholics; in a sense, civil control was being exerted in the military victories over the Huguenots. After the Edict of Nantes one of the civil liberties that the Huguenots gained was the right to conduct their own schools and universities in their free cities and towns. After Louis XIV came into power, education was left largely to the Catholic Church but civil control was exerted primarily over universities in a series of edicts about what university professors could and could not teach. Louis XIV required universities to teach the French civil law as well as canon law, and several edicts were issued to prevent instruction on the work of Descartes and Gassendi.

Civil control in England. The Church of England retained control over education in England much as the Catholic Church had in France, but all Protestant rulers in England issued edicts of one kind or another about schools and universities inasmuch as they asserted that the king was the supreme head of the church. The Chantry Acts under Henry VIII and Edward VI dispossessed the Catholic foundations for chantry schools, and Henry VIII took over the monastic schools. Universities were inspected and supervised by agents of Henry VIII and Elizabeth. Henry VIII made the church primers required reading in schools, and thus the beginning church book became the beginning schoolbook. He also required Lily's *Grammar* to be studied in grammar schools. The Oath of Supremacy under Elizabeth in 1562 required all teachers to take the oath of loyalty to the monarchy and subscribe to the Thirty-nine Articles of Anglican faith and gave supervision of grammar schools to bishops.

In other areas affecting a different kind of education the Statute of Artificers issued in 1563 set up national standards of skill in the trades, took control of apprentices away from the guilds, and put it into the hands of the civil magistrates. A series of poor laws culminating in the Poor Law of 1601 required the parishes to take care of their poor, if necessary by taxation, and required the compulsory apprenticeship of

poor boys and girls, the parish overseers being empowered to carry out the orders. Insofar as masters of the trade came to conduct the vocational and religious education of their apprentices, the poor laws helped to provide the seeds of civil control and taxation for vocational education in England and America.

When the Puritans came to power in England, their Calvinistic doctrines led many of their leaders to recommend the establishment of a state system of schools. Especially prominent in this respect was Samuel Hartlib, but the Puritan regime was so troubled and ended so soon that these ideas were not realized, and education reverted to the Church of England under the Restoration. The Act of Uniformity of 1662 required all teachers to take an oath subscribing to the established religion and to acquire a license from church officials. A few years later the Five-Mile Act levied fines upon any nonconformist who taught in defiance of these regulations. Thus, the state in England was coercing education in the interests of religion. The Puritans defied these laws by setting up schools in secret for their congregations, the so-called "Dissenters' Academies," but with the Act of Toleration of 1689 under William and Mary the Puritans were free to teach openly once more.

Private and Religious Control of Education

In general, civil control of education progressed further during the Reformation in Lutheran and Calvinistic countries than it did in England, France, Italy, or Spain. The latter countries, despite the many instances of civil control, adhered primarily to the traditional conception that education is a function of the church and of private philanthropy. Civil requirements that schools be established played little part in the provision of educational facilities in comparison with religious and private sources.

In England. When the Catholic Church was largely eliminated from the religious scene in England and the foundations of the monastic and chantry schools were confiscated, the state made little or no provision to fill the educational gap thus left. Elementary education was provided in a rather haphazard and unsystematic way. Parents taught their children whatever they could, hired a tutor if they could afford one, or sent their children to the parish priest if he could and would teach them their letters. In some instances more or less formal instruction was given to neighbors' children by a housewife, while she did her housework, for which a fee was paid. Such arrangements have euphemistically been called "dame schools." The most fortunate children were often sent to the preparatory department of a grammar school, sometimes called a petty school. By and large, then, education was available principally to those whose parents could afford to provide it. Of

course, as the merchant class grew in wealth and numbers, more parents could afford education, and some proposals were made for charity schools for the poor; but, by and large, formal education did not affect the lower classes to any considerable extent.

Much more interest was expressed in a classical secondary education. Many new grammar schools were established, some estimates stating that as many as 500 such schools were newly founded or refounded during the Reformation. The financial stimulus for this interest came substantially from the new middle class, whose desire to improve their social status often kept pace with their improving economic status. As funds were poured into the endowments for these Latin grammar schools, the bases were being laid for the "English public schools." The desire to give free instruction to poor children was doubtless a motive in this movement, as witness the plea of Archbishop Cranmer that poor boys be admitted to Canterbury School; but, by and large, the clientele for these schools came from the more well-to-do classes until eventually their status as free schools disappeared. They were "public" in the limited sense that the funds and income were to be used for the benefit of the schools rather than for the private profit of those who conducted them. The most notable of the so-called "public" schools came to be Winchester, Eton, Westminster, St. Paul's, Shrewsbury, Rugby, Harrow, Charterhouse, and Merchant Taylors' (the name of the last reflecting the influence of the merchant class).

In France, Spain, and Italy. In the predominantly Latin countries the Catholic Church maintained a firm hold upon the control of education. The stimulus of the decrees of the Council of Trent bore fruit in the establishment of many schools by church teaching orders in these countries. Among the most energetic bishoprics was the diocese of Paris, where schools were organized for the poor and laboring classes and where by 1675 some 5,000 pupils were taught by 300 teachers. The Jesuit schools were doubtless the most numerous and outstanding of those established by the church orders. Their efficient system resulted in the establishment of several hundred institutions, attended by some 200,000 students, by the end of the Reformation; the estimate is made that several thousand students were in attendance in the Paris region alone in the middle of the seventeenth century. The Fathers of the Oratory became another very influential teaching order in Italy and France, concentrating primarily on secondary education.

Before the end of the Reformation period some ten or twelve church orders were at work in elementary education, the most important of which were the Ursulines, Sisters of Notre Dame, Piarists, Port-Royalists, and Institute of the Brothers of the Christian Schools. The purpose in founding many of these was to provide free schools for poor

children of the working classes. The number and success of the schools of these orders should caution against the belief that the Protestants alone were interested in elementary education for the masses. The Protestants turned to the civil authority, but the Catholic Church continued largely under its own widespread authority. The Piarists, for example, established schools not only in Italy and France but also in Bohemia, Poland, Austria, and Hungary, and the Jesuits covered the whole of Europe with their schools. The widespread activities of the teaching orders brought them into conflict with the state provisions of other countries; the long fight between public control of education as against religious or private control was entering a new phase.

Status of the Teaching Profession

In general, the Reformation began to emphasize the importance of teaching and of better prepared teachers. Although the improvement was necessarily slow, the combined interest of state and church in religious orthodoxy led to the setting up of standards for the teaching profession and marked the beginnings of certification and examination of teachers by the state churches. Luther visualized a teaching profession that would be well trained, achieve a greater amount of dignity, and be licensed by the government. In Germany the remuneration of teachers came primarily from student fees and tuition, often supplemented by funds from the government or church treasury. Teachers were required to abide by the state laws and by the ordinances that laid down prescriptions for curriculum, discipline, and religion. Some state laws even provided a measure of social security through old-age pensions and sickness aid. In England, teachers enjoyed an economic and social status as high as, if not higher than, in Germany, but with similar oaths and prescriptions laid upon them by king and church.

Supervision of instruction grew out of the desire of the religious groups to see that teachers remained orthodox in their religious teachings and represented a kind of fear of what harm unsatisfactory teachers might do, as well as a growing respect for the potentialities and efficacy of education. Perhaps the most careful of all in supervising teachers through civil and religious authorities were the Calvinists in the Netherlands and Scotland and the Puritans in England and America. The Catholic teaching orders were likewise careful in their supervision and made progress toward the better training of teachers. The Jesuits, Fathers of the Oratory, Port-Royalists, and Institute of the Brothers of the Christian Schools set up teacher-training programs to ensure the better preparation of teachers. With the growing tendency to apply the principles of science to education the conception of method in education received a good deal of attention in the educational literature of

the Reformation. Mulcaster urged the establishment of teacher-training institutions, and Comenius elaborated a thoroughgoing system of method that laid the foundations for later improvements in the preparation of teachers.

Nonschool Agencies of Education

As already noted, not only the schools but the whole of a culture educates the people through the institutions that they live by and through the guiding beliefs that they come to accept. During the Reformation ideas and actions were affected by the new political and economic arrangements that were characteristic of the period. The growing respect for the state and for the benefits of material wealth began to play an important part in the lives of the people. The authoritative leadership of the clergy in the various churches also affected the motives and actions of all classes. The family as an educative institution was emphasized by most of the Protestant reformers. Luther emphasized the importance of the family in stimulating moral and religious discussion through Bible reading and teaching the child his catechism as well as in training the child to a trade. The Calvinists likewise stressed the importance of the family in the early education of youth and called for extensive Bible reading and prayer in the family circle, often dwelling on the possibility of eternal punishment for the lost souls of children. Comenius urged that there should be a school at the mother's knee in every family.

The spread of printed books and growing literacy had an enormous educative effect, for the common people could thus read the Bible and participate somewhat in the vernacular literature of the theater. The possession of books and the creating of private libraries began to increase among wealthy families, and the extensive pamphleteering on religious subjects spurred by the conflicts between sects attracted the attention of the intellectual classes. Also, the rapid increase of interest in things scientific showed the educational effects of such vernacular writers as Bacon and of the activities of the scientific societies in most of the countries of Europe. Such nonschool agencies of education stimulated organized educational effort and in turn were aided by the spread of elementary and secondary schools.

EDUCATIONAL AIMS, CURRICULUM, AND METHODS

Merging of Religious and Secular Aims of Education

The usual description of sixteenth- and seventeenth-century education as dominated by religious aims is true in a sense, but it is only a half

truth that needs considerable modification. Although much of the impetus for education came from religious leadership, the effects of political and economic, scientific, and Humanistic influences upon educational aims, curriculum, and methods were apparent even in the days of the most energetic religious reform.

The aims of the Catholic teaching orders in Italy, Spain, and France continued to be principally religious. The ideal of preparing youth to become good Christians and devout Catholics dominated all that they did. Although this same aim was essential in the educational proposals of the Protestant reformers, many of them began to widen the conception to include education for the state as well. Luther, always vigorous in his pronouncements, insisted that all children should be educated for the good of the state as well as of the church, but his earlier zeal that all should read the Bible was relaxed in later life, when he lost some of his faith in the common people and believed that the study of his catechism was probably enough. The close identification between church and state that the Calvinists assumed always meant to them that education for the glory of God would also improve all aspects of the commonwealth, both political and economic. Even Milton, who, good Puritan that he was, believed thoroughly that the end of all learning was to know God and to love and imitate him for the purposes of salvation, nevertheless formulated an all-inclusive definition of education in which religion is not mentioned specifically: "I call, therefore, a complete and generous education, that which fits a man to perform justly, skillfully, and magnanimously all the offices, both private and public, of peace and war."

Likewise, Comenius, an ardent Moravian bishop who was deeply pious and felt that all knowledge was revealed ultimately in the Scriptures, insisted that children were not born human but became human through education and the process of growing up in a culture. He was impressed by reports of wild children who had grown up apart from human society and thus were less than human. In some respects he was thus in agreement with modern cultural anthropologists, who make exactly the same point. He viewed the school as the manufactory of society, shaping children into human beings and playing a large part in the improvement of society. In any case to him the aims of education were wider than merely religious, for children must be taught to live not merely for the church and for the school but for all of life. Here is definitely a widening of the aim of education, even to the point of a democratic aim, for he opposed a separate Latin school for the aristocracy, believing that everyone was equal in the Christian republic.

In other respects, too, the aim of education was widened in the Reformation. Economic and political influences can be seen in the new pro-

visions for vocational education and the interest in teaching a trade to poor children. Economic factors were at work in the attempts of the middle classes to widen the scope of vernacular education so that it would meet more adequately their commercial needs. When the Humanist tradition was incorporated into the Reformation schools, it tended to widen the narrowly religious conceptions by acquainting students with the secular cultures of Greece and Rome. The aristocratic character of Reformation culture led the courtly classes to establish new academies that would meet their new needs in military and social accomplishments. Finally, the scientific influence was gradually felt in the growing emphasis upon a wider curriculum to include the sciences and in the attempts to build up a scientific methodology of teaching.

Education for the Common People

Vernacular schools in Lutheran lands. After the destruction of the religious wars, the Reformation in Germany, Denmark, and Sweden doubtless stimulated the development of vernacular schools for the masses of people, both building upon or transforming the Catholic parish schools and town schools already in existence and organizing new ones whenever possible. The effort to spread vernacular education among the people cannot be doubted, whatever the actual success. The growing use of printed books made possible the wider dissemination of Luther's German translation of the Bible, his catechism and hymnbook, and schoolbooks written by Luther and his followers. Bugenhagen was especially instrumental in organizing vernacular schools in the various German states, even to the extent of attempting to legislate against the private schools already in existence. Denmark and Sweden also took steps to reform their schools along Lutheran lines. It should be noted, also, that the Moravian denomination developed good vernacular schools before the ravages of the Thirty Years' War virtually wiped them out.

The vernacular curriculum thus came to include reading of the Bible, learning of Luther's catechism, reading of Aesop's *Fables* translated by Luther, singing the Lutheran hymns, and possibly some history, physical activity, and arithmetic (although the earlier reckoning schools maintained their superiority in arithmetic). The basic four R's (reading, writing, arithmetic, and religion), along with music and some history and physical education, came to be the principal curriculum of the common vernacular schools in Lutheran lands.

Vernacular schools in Calvinist lands. Like Luther, Calvin strongly advocated vernacular schools in which children could learn the Calvinist catechism, the three R's in the vernacular, and the singing of Calvinist hymns. The Huguenots carried this type of school wherever possible into France, and the German Reformed Church (teaching in

German, of course) attempted to do so in the territories of western Germany, where they made some gains. In the Netherlands the Dutch Reformed Church set up what may have been the best vernacular schools of any country of Europe. Here again, stimulated by the practical needs of the commercial cities of the Netherlands, the Dutch schools taught the three R's and religion for boys and girls and doubtless had an influence upon the Puritans of England and America as well as the Dutch settlers in America. The Scottish schools followed somewhat the same pattern when they were established in the seventeenth and eighteenth centuries.

Vernacular schools in Catholic lands. The teaching orders of the Catholic Church also developed vernacular schools during the Reformation, perhaps in response to the Protestant gains in this area. The Port-Royalists and Institute of the Brothers of the Christian Schools taught in French, as did several of the women's teaching orders. Even the Fathers of the Oratory, who were interested primarily in secondary education, developed a good deal of teaching for the early school years in the vernacular. These schools corresponded in large part to the Protestant schools, with the emphasis, of course, upon Catholic religion rather than Protestant. Parish schools taught by the local priest also multiplied in response to the admonitions of the Council of Trent, and these gradually turned their attention to teaching in the vernacular of the country in which they were located.

Vernacular schools in England. An essential phase of the Reformation in England was the change of the language of the Church of England from Latin to English; and this meant that the language of the parish schools taught by Anglican priests came to be English. Mention has already been made of the use of church primers, the Prayer Book, and hymnals in such teaching. The destruction of the Catholic monastic and chantry schools destroyed the bulwarks of Latin teaching in elementary schools. Family tutors, private teachers, and dame schools supplemented the English instruction of the priests, all giving their attention more or less to reading, writing, the catechism, hymns, and perhaps ~~some~~ arithmetic, along with attention to the manners and proper behavior of children. The alphabet and Lord's Prayer came to be learned from a hornbook, a small board covered with parchment on which the words were printed and protected by a thin covering of transparent horn resembling isinglass.

Among the Puritans in England the use of vernacular English became extremely important. In elementary schools conducted by the ministers English was the language through which the Calvinist religion was taught. When the Act of Uniformity drove the Puritans underground, these schools continued to operate; and as toleration was won late in

the seventeenth century, it was decided by the courts in several legal cases that elementary school teachers were not required to be licensed by the bishop as was the case with grammar school teachers. Thus, the dissenters' schools began to flourish in the eighteenth century.

Even at the secondary level the teaching of the vernacular became common in the so-called "Dissenters' Academies" taught by Puritan ministers. Although these academies began by emphasizing the classics, they gradually widened their program under economic and scientific influences until they furnished the widest curriculum of any secondary schools in the seventeenth century. All teaching came to be in English, and in addition to the standard classical studies they offered instruction in six of the seven liberal arts (grammar, rhetoric, logic, arithmetic, astronomy, and geometry), trigonometry, algebra, geography, surveying, navigation, ethics, history, economics, politics, natural science, anatomy, metaphysics, and some of the modern languages. Although any one school did not give instruction in all these subjects, nevertheless the type of school as a whole (of which there were 50 or 60) included this range of studies. In the eighteenth century they came to exert a great influence upon the private schools and academies of America. The influence of science and of the practical business of making a living was evident in the study of natural science, practical arts, and social science, which a strictly religious aim would not necessarily have included.

Vocational education. In addition to the vernacular schools that the Reformation provided for the children of the ordinary person, some strides were made toward providing a modicum of vocational training, especially for the children of poverty-stricken families. In Germany Luther had urged the importance of teaching all children a trade, but he felt that this should be done in the home. Other provisions for a kind of vocational education for commercial purposes have already been described in connection with the development of the writing and reckoning schools that grew up in German towns in the fifteenth century (see pages 218 and 223). These schools continued through the Reformation period to teach writing, commercial arithmetic, and bookkeeping. In the Netherlands considerable attention was given to commercial and trade education, as might be expected in a country of dominating commercial interests. As early as 1531 a law required that children either be compelled to go to school or be apprenticed to a trade, and municipal governments were directed to establish schools to give vocational training. Here was a tradition of vocational education that along with the English tradition was to influence the Dutch and English settlers in America. It was no accident that vocational education received its most effective start in those countries most advanced commercially, namely, Germany, the Netherlands, and England.

In Elizabethan England early steps had been taken to provide by law compulsory apprenticeship and workhouses for poor children. The Statute of Artificers in 1562 and the Poor Law of 1601 were designed to take care of the economic shift in interest from agricultural to commercial and manufacturing affairs that had thrown many lower-class people off the land and out of work. The habit of turning to vocational education for relief during a depression was not an invention of the twentieth-century United States. In the seventeenth century several of the Puritan reformers urgently advocated the extension of vocational education into the schools. Petty advocated that technical schools be set up for tradesmen; Dury urged greater attention to the practical subjects of agriculture, navigation, and commerce; and Hartlib advocated the study of how to apply science to commerce, industry, agriculture, and education. These men represented the commercial and practical interests of the Puritans, but they could not break the hold of the religious and classical tradition in education, although the Dissenters' Academies did begin to pay some attention to these recommended subjects.

The important thing to note is that the foundations of civil control for vocational education were being laid and that economic conditions were becoming ripe for the greater attention given to vocational subjects during the eighteenth and nineteenth centuries, when they actually began to be taught in the schools as well as through apprenticeship. The incorporation of vocational studies into the schools is one of the most important events of modern education, though it raised one of the most violent of all educational controversies concerning the role of liberal versus vocational studies. The Reformation at least *expressed* the doctrine that education should fit children for the active pursuits of life, and this took the form of a demand for a more practical and vocational education.

Education for the Upper Classes

One of the most extraordinary aspects of Reformation education is the way in which all the warring religious groups agreed on one thing, namely, that the classical curriculum provided the best secondary education for training leaders for church and state. This did not seem extraordinary at the time, for the historic documents of the Christian Church were written in the classical languages and the immense strides of Renaissance Humanism had established the classics so firmly as the basis of secondary education that few people even considered questioning their validity. The wholehearted way in which both Protestants and Catholics continued to rely upon the classics served to maintain their influence in secondary and higher education much longer than would

otherwise have been the case. The educational marriage of religion with classical Humanism has brought forth untold progeny even to the present generation.

The upper track of the two-track system consisted of the classical secondary school, used by the Reformation for religious, political, and economic purposes. The classical humanities became the mark of religious scholarship, political superiority, and good breeding and manners. Gentility could be won indeed by financial success but even more so by the accomplishments bestowed by a classical education. The classical ideal prevailed in secondary education, despite the dreams of certain educational reformers who saw possibilities in the vernacular languages and in science. Thus, the Reformation laid the groundwork for the classical secondary school that was to dominate secondary education in Europe for the next two centuries in the form of the *Gymnasium* in Germany, the *lycée* in France, and the grammar school in England.

Lutheran classical schools. Despite his interest in vernacular education for the common people, Luther always felt that the Latin school was the prime educational agency for promoting the Reformation in Germany. It was the Latin school that would train leaders for the church and state and prepare for the universities. In those days of intense religious controversy and debate it was the classical school that would prepare Lutheran leaders to defend and propagate the Lutheran faith on an equality with the Catholic leaders. Luther wanted even the elementary schools to teach Latin rather than German; but when he despaired of the abilities of the common people, he put more emphasis than ever upon the secondary schools.

Luther's faithful lieutenant, Melanchthon, who had charge of reorganizing secondary education in Lutheran Germany, was a thoroughgoing Humanist; he loved Greek as well as Latin and had a contempt for the vernacular. Melanchthon was extraordinarily active in establishing classical schools, wrote numerous textbooks on all the seven liberal arts, and was a constant adviser to the Lutheran rulers in setting up their school codes and secondary schools. Also influential was Johann Sturm, whose organization of secondary schools into regular classes laid the foundations of the German *Gymnasium*. In his school at Strasbourg Sturm divided the curriculum into 10 graded classes, each to be taught by a different teacher and each to study a prescribed curriculum. In this curriculum were found a selection of the ancient secular classics, ancient religious writers, the medieval liberal arts, and the Humanist and reform writers, so patterned as to conform to the Reformation conception of a liberal education.

Calvinist classical schools. Little essentially different can be seen in the secondary schools set up by Calvin in Geneva. He, too, put great

emphasis upon the study of the classics in order that "true" religious scholars might read the Scriptures in their original languages and not be obliged to depend upon Catholic interpretations. He once said that only those boys who could not study the classics profitably should, as second best, study the vernacular. Calvin had taught at Strasbourg and modeled his schools upon Sturm's. He shortened the curriculum to 7 years and introduced some vernacular French, but the prime object was still to train leaders in classical scholarship and rhetoric in order to defend and propagate the Calvinist faith.

Catholic classical schools. The most effective of the secondary schools under Catholic auspices during the Reformation were the schools of the Jesuits, called *collèges*. These schools were often physically well equipped, and characteristic Jesuit thoroughness led to the systematizing and standardizing of the curriculum into what has been called the *Ratio Studiorum* since 1599. The Jesuit *collège* consisted of six rigidly prescribed grades in each of which were taught Latin, Greek, religion, and religious history. The Latin authors most commonly read were Cicero, Ovid, Vergil, Catullus, and Horace; Greek authors were Chrysostom, Aesop, Isocrates, Basil, Plato, Aristotle, Plutarch, Demosthenes, Thucydides, Homer, Hesiod, and Pindar. The religious writings of the church fathers were mingled with secular prose, poetry, rhetoric, and philosophy (the latter carefully selected for moral and religious purposes so as not to conflict with Catholic doctrine).

Beyond this standard course the Jesuits instituted a 3-year philosophy course in which more classical grammar and literature were studied as well as rhetoric, logic, mathematics, ethics, metaphysics, and natural science. During the last year of the philosophy course, instruction was given in the theory and practice of teaching. The Fathers of the Oratory also developed successful secondary schools, deviating from the Jesuit schools somewhat in the attempt to incorporate Cartesian philosophy, science, and mathematics and utilizing the vernacular to a greater extent.

Anglican classical schools. The Latin grammar schools of England came to be the English equivalent of the German *Gymnasium* and French *collège*, and the very title describes eloquently what the main business of the schools was. In curriculum the grammar school was likewise pronouncedly classical in content, but very often the art and practice of letter writing was included, as a concession to the practical interests of the commercial classes. Even more characteristically, the "public schools" of England came to put much emphasis upon sports and physical activity on the playing field. To a much greater degree than in the German *Gymnasium* or French *collège* the English relied upon games and the spirit of fair play in athletic contests to develop not only phy-

sical prowess but also moral habits of sportsmanship and the ability to "take it."

Standardization and discipline. In general, then, the secondary school of the Reformation came to be carefully graded and divided into classes, with regularly prescribed books to be read at certain times. This process of standardizing the curriculum has provided educational reformers ever since with ammunition with which to criticize traditional conceptions. The age-old struggle of rigidity versus flexibility in the curriculum was being won during the Reformation in favor of rigidity as far as the secondary schools were concerned, despite the attacks upon them.

During the Reformation the flexibility characteristic of the wandering students of the Middle Ages and Renaissance began to give way to order, discipline, regular attendance, a prescribed curriculum, and regular classification and promotion from one grade to the next. Constant attempts were made to make students "toe the mark," and innumerable rules were passed to prevent fighting, carrying weapons, lying, cheating, drinking, gambling, swearing, card playing, dicing, and even swimming, skating, fishing, and birdcatching. Severe punishments were meted out in the attempt to enforce discipline. Part of the necessity for discipline was doubtless the fact that the Reformation secondary schools, especially in Germany and France, began to take over many of the subjects of the traditional liberal arts that had formerly been taught in the medieval university. The effort to teach difficult classical studies to young boys, who began the course anywhere from the age of seven to fourteen and finished at from fourteen to seventeen years of age, must certainly have taxed the ingenuity of the masters in matters of discipline.

Courtly academies for the nobility. The political, economic, and social changes affecting the highest social classes during the Reformation caused them to be dissatisfied with the classical curriculum just described. The older medieval training for knighthood was no longer suitable for a life that centered more and more in the royal courts of Germany and France, where social graces, and dueling, horsemanship, and other "respectable" means of fighting became the aim of life. The children of the nobility needed a more practical kind of education to prepare them for a military, courtly, and social life. The ideal type of education for "gentlemen" had been described in Renaissance terms by Castiglione, Elyot, and Ascham. Now in the Reformation a good many academies appeared to fulfill the needs of this group. By 1649 there were over 40 princely academies near Paris alone, and they rapidly were copied in the *Ritterakademien* of Germany. In such schools, children who were destined or hoped to live their lives at court were taught dueling with sword and pistol, riding, gunnery and fortification, music, her-

aldry, geography, history, mathematics and science, and the vernacular languages, especially French.

One of the most complete proposals for such a school, although never put into practice as such, was *Queen Elizabeth's Academy* written by Sir Humphrey Gilbert, himself almost an English prototype of the kind of courtly gentleman whose education he was proposing. His ideal was to provide an education that would include training for a life of action appropriate for the practice of peace and war. In this book Gilbert proposes the teaching of the classical languages, the social sciences, the intellectual weapons of logic and rhetoric, military theory and practice, and the social accomplishments of the modern languages, music, and dancing. The influence of such an ideal eventually affected student life in universities. Students dropped the drab clerical garb, took to wearing swords and jaunty clothes, and measured their social, if not intellectual, success by the number of dueling scars they could exhibit.

University Instruction

In general, the universities of Europe overlooked the new science and philosophy in favor of the study of theology and religious disputation. The earlier battles of the Renaissance to make the universities Humanistic were given further impetus by the Reformation desire to use the classics to prepare the clergy for theological controversy. Thus, the universities were not becoming centers of free inquiry and investigation. In fact, they were lagging considerably behind other cultural developments and held so vigorously to their religious-classical emphasis that they gave little attention to new scientific developments.

Italian and Spanish universities. During the Renaissance the freest universities had been in Italy. The University of Padua, under the protection of the free city of Venice, had become the great scientific university, particularly in mathematics, medicine, and anatomy. Copernicus, Vesalius, and others did outstanding work there as students and professors. However, the growing vigor of censorship instituted by the Catholic Counterreformation in the later sixteenth and seventeenth centuries served to reduce the Italian universities to impotence for centuries to come. Much the same sort of thing happened in Spain, where the universities had prospered under Charles V and Philip II. The University of Salamanca, for example, in 1561 provided for the books of Copernicus to be taught in astronomy and those of Vesalius in anatomy, the first such provision in any European university. But, again, the decline of Spain as a first-rate power and the force of the Spanish Inquisition brought about a corresponding decline in the Spanish universities.

German universities. The Reformation wars, dogmatic religion, and state control made the German universities dominantly centers of theology-mindedness. Lutheran rulers made their universities serve Lutheran purposes, and Catholic rulers did likewise for Catholic purposes. The universities at Wittenberg, Leipzig, Frankfurt, Tübingen, and Rostock became Lutheran, and new Lutheran universities were founded at Marburg, Jena, Strasbourg, and Königsberg. Although the union of theology with Humanism had preserved some of the vitality of the Humanistic interests, most German universities reached a low level under the weight of theological interests by the end of the seventeenth century. The revival in the eighteenth-century Enlightenment was to see the German universities emerge into the first rank among the universities of the world, a position that they maintained until the Hitler regime of the twentieth century.

French universities. The French universities also declined into impotency under the oppression of religious fanaticism and national despotism. The Huguenots had established eight or nine higher institutions during their period of toleration, but they were wiped out as the Huguenots were driven to cover or into exile in the seventeenth century. Francis I tried to reform the University of Paris along Humanistic lines, but failing in this he set up the *Collège de France*. Henry IV put the University of Paris under civil rule in 1600 and regulated minutely the order of studies and exercises in the faculty of arts; but the classical study was largely dry and formal, and the science and mathematics depended upon Aristotle, the new science of Copernicus and Descartes being rejected or overlooked. A new and even less fruitful scholasticism was being handed down, having little life, vitality, or connection with the new cultural trends of the day.

Dutch and Scottish universities. Calvin's higher institution of learning at Geneva was the capstone of his educational system. The academy at Geneva was apparently very successful at the outset, enrolling several hundred students the first year. Emphasizing constant religious devotions, the curriculum included the classics, the usual liberal arts, ethics, poetry, physics and theology. Obviously designed to prepare preachers, theologians, and teachers for the Calvinist world, Geneva was used as the model for the University of Leiden in the Netherlands, University of Edinburgh in Scotland, and Emmanuel College of the University of Cambridge in England, all of which were to have an influence upon colleges in America. Of the several universities established in the Netherlands in the sixteenth and seventeenth centuries, the Universities of Leiden, Amsterdam, and Utrecht became outstanding centers of scholarship and Calvinist religion. Several of the Scottish universities were founded in this period under Presbyterian auspices, among which

Edinburgh and Aberdeen soon achieved preeminence, especially during the eighteenth century.

English universities. In England the Humanistic interest was associated with religious sectarianism as the various colleges at Oxford and Cambridge supported different creeds. Humanistic and classical studies came to be used as new weapons with which to fight old theological battles. Some colleges became Anglican in their tendency, and others remained Catholic; when Catholics were excluded by Queen Elizabeth in 1575, battles soon began to be fought between Anglican Protestants and Puritan Protestants. The Puritans went mainly to Cambridge, where endowments had been made favorable to them, especially St. John's College, Emmanuel College, and Sidney Sussex College. These colleges became the avowed centers of a militant Puritanism, which trained many of the Puritans who came to America. Theology remained the predominant study at the higher levels, and the new science was almost entirely ignored. The required instruction at Oxford and Cambridge was largely aimed at training clergymen who would be well versed in Latin, Greek, Hebrew, and the art of disputation so that they could go forth and defend their religious doctrines against all assailants.

The system of college instruction as opposed to university instruction was more firmly embedded than ever by the Reformation emphasis upon discipline, mental, moral, and religious. The college retained its communal aspects, marked by the hall and quadrangle, in which masters and students lived and studied together. The continued enforcement of celibacy upon masters and tutors also helped to preserve the communal life of the English college long after the Reformation had seen its disappearance in German universities. The English conception of a college with its discipline and prescribed curriculum was most influential in the beginnings and development of higher education in America. Harvard, the first American college, was virtually a copy of one of the colleges at Cambridge.

Ingredients of a liberal education. In England, at the time of the colonizing of America, the liberal-arts course consisted of (1) the medieval liberal arts (grammar, rhetoric, logic, arithmetic, geometry, astronomy, but no music); (2) the philosophy of Aristotle (ethics, politics, physics, and metaphysics); and (3) the Renaissance studies of classical Humanism (Latin, Greek, Hebrew, and rhetoric). The Reformation made all these studies more or less subservient to religious and sectarian interests as well as to the demands of a political state closely allied with the church.

Each of these historic ideals based its conception of a liberal education essentially upon linguistic and literary studies. Therefore, the Reformation educators assumed that the best way to develop a man of action

was through the study of books. (The courtly academies were a denial of this principle, but they did not receive much acceptance in England.) Moreover, since only a few men were considered capable of higher education in language and literature, only a few were considered capable of leadership in society. In these respects, the liberal education of the Reformation was founded upon an aristocratic conception of society and upon the scarcity theory of higher education, whereby academic degrees and a liberal education were valued even more highly because they were attainable by only a few.

A liberal education meant principally that the student was more or less conversant with Latin, Greek, mathematics, and philosophy. This conception, as embodied in the prescribed curriculum and disciplinary methods, was extremely tenacious. But even before the end of the Reformation period certain secular forces began to affect the aim, content, and method of a liberal education in such a way that traditional conceptions were eventually weakened and the introduction of new studies and new methods was made possible.

New Conceptions of Educational Method

Common practices. The most common methods of teaching grew out of the bookish, linguistic, and mathematical studies that dominated the classrooms of the Reformation period. This meant that success at school was determined largely by the ability to memorize quantities of material and to recite to the teacher what was in the book. Ever since the widespread use of written language as a cultural tool the most obvious method of school learning had been memorizing. When grammar was organized into a body of rules, then the study of grammar included the memorizing of grammatical rules. When English grammars were written, they followed the precedents found in Latin grammars; and as rules for other studies such as logic, rhetoric, and mathematics were developed, the learning of those subjects likewise included memorizing of rules.

Practice in the rules of rhetoric and logic led to the use of the "disputation," whereby students argued according to the rules of formal logic. Likewise, the "declamation" gave students the opportunity to declaim, or recite, excerpts from the classic writers or pieces of their own composition according to the rules of rhetoric and oratory. Some of the more advanced secondary schools gave a good deal of opportunity for the reciting of lines from ancient plays in order to develop a sense of the style and usage of the classic authors. These methods of bookish learning grew out of the general adherence to a rationalistic conception of mind. When the imitation of classic authors was so pronounced as to be slavish, the method became known as Ciceronianism.

Formerly, pupils of a wide range of age and ability were grouped to-

gether. One schoolmaster attempted to teach all the pupils, who perhaps ranged in age from six or seven years to fifteen or sixteen years. Classifying the pupils according to age and grade was an outgrowth of the Reformation period. Discipline was often severe, even brutal, including whipping and the ridicule attendant upon the use of the dunce's cap and dullard's stool. The reaction against such severity was achieving some expression in the doctrines of sense realism that began to be formulated in the latter part of the Reformation.

Newer methods of sense realism. The growing influence of an empirical point of view in science and philosophy had its educational effects in the doctrines of sense realism. Several educators began to react against the rationalistic formalism of Ciceronianism and the irrational excesses of discipline. In general, the sense realists urged that learning through the senses by means of actual things is far more effective than merely learning words and rules from books. The inductive method of science whereby the learner begins with actual and simple observations of what he knows best and proceeds to more complex and unfamiliar things was stressed as the basis of educational method. Efforts to arouse the interest of students in what they were learning and to adapt the materials to their abilities were praised as an improvement over traditional formalism and mere bookishness. In such ways as these the sense realists showed that they were becoming aware that Reformation schools lagged behind Reformation culture. They insisted that school methods and curriculums should be widened to meet appropriately the changes that were occurring in the culture.

Many of the doctrines of sense realism stemmed from the empirical philosophy as it was being stated by Francis Bacon, who insisted that education should cultivate the scientific spirit and method. Bacon attacked the "contentious" learning of traditional dialectics and theology, the "delicate" learning of Ciceronian Humanism, and the "fantastic" learning of superstition and witchcraft on the basis that all these neglected the study of nature and depended upon mere speculation or authority. Instead, education should encourage original investigation, should cultivate the habit of suspending judgment until the facts were in, and should foster a critical attitude that would free the individual from the shackles of preconceived prejudices and fixed ideas. Other Utopian writers, such as Campanella and Andrea, described ideal communities where education played an important role in society and where science, art, painting, and drawing played a large part not only in the education of the schools but also in adult education through the decoration of the community buildings with pictures, diagrams, and charts.

Luther and Ratke. In his various writings on education Luther expressed some ideas consonant with sense realism, but apparently they

were the result not so much of an awareness of sense realism as of an effort simply to make the teaching of young children more effective. His conception of a classical secondary education seems not to coincide with some of his recommendations that elementary instruction should be adapted to the capacities of the learners and should be made more pleasant by appealing to the interest of pupils, by studying things as well as words, and by softening discipline.

Nearly a century after Luther, a strange man who embraced Lutheranism made several efforts to apply the Baconian doctrines to the teaching of languages. Wolfgang Ratke had read Bacon in England and came back to Germany, promising mysteriously effective methods of teaching. He captured the fancy of the prince of Anhalt, who set up a school for him that several hundred boys and girls attended. Ratke urged that the order of nature should be followed in teaching, but his suggestions were somewhat confused. He recommended learning one thing at a time until it was thoroughly mastered through repetition, based upon questioning, and understanding rather than upon mere memory; direct knowledge of things should precede the learning of words about things. In the study of the classics, arithmetic, singing, and religion, the use of the German vernacular should predominate. Ratke's influence was limited because of the criticism evoked by his narrow spirit and secretive methods.

Comenius. The eminent Moravian bishop, Johann Amos Comenius, was perhaps the outstanding writer upon educational theory during the Reformation and paved the way for the wider application of sense realism in the eighteenth and nineteenth centuries. Comenius tried to apply the methods of science, as he understood them, to educational theory, curriculum, and method. All instruction should be carefully graded and arranged to follow the order of nature as revealed in the child's development. This meant proceeding from the simple to the complex, from the known to the unknown. Throughout all teaching the understanding of the child should be approached through appeals to his sense experience. Thus, Comenius urged that the child learn by acquaintance with actual objects wherever possible and in any case through pictures and representations of things. His many textbooks were profusely illustrated and thus introduced the idea of picture books for school children. His *Orbis pictus* is perhaps the best known. He improved language teaching by giving simple descriptions of the pictures, with the vernacular and the Latin sentences written in parallel columns.

In *Didactica magna* Comenius set forth his educational theory and his plans for reforming the curriculum and organization of schools. In general, he was impressed with the possibilities of social reform through pansophism, that is, teaching all knowledge to all children. In the

school for infants up to the age of six (School of the Mother's Knee) Comenius would train the senses and bring about moral, religious, and physical development through play and games, fairy tales, rhymes, music, and manual activity. In his vernacular school for ages six to twelve, he would teach the three R's, singing, religion, morals, economics and politics, history, and the mechanical arts. In the classical school for ages twelve to eighteen would be taught German, Latin, Greek, Hebrew, grammar, rhetoric, logic, mathematics, science, and art. The university would be the top rung of this ladder system. At all levels the subject matter should be carefully organized into classes and graded to the pupil's ability. The school year must be carefully determined, as well as hours for specific activities during the school day. Classes should be taught as groups for the social advantages thus to be gained, and the various subject matters should be correlated as far as possible. In all activities the school should be made practical for life and pertinent to an upright religious life.

Comenius was far in advance of his day and probably had little effect upon his own time, but the modern tone of much that he proposed is proof of his insight into some of the cultural stirrings of modern times. Although his advice was sought in Poland, Sweden, Hungary, and England (and even some mention was made of inviting him to be president of Harvard), Comenius suffered successive defeats and failures in his homeland because of the ravages of the Thirty Years' War. His religious sect was so generally persecuted that his influence was doubtless much less than it would have been if he had belonged to a majority group.

English theorists on method. The effects of sense realism upon several English writers of the seventeenth century are worthy of mention. Richard Mulcaster urged that instruction should be adapted to the pupil's interests and capacities and that great use should be made of physical activity, music, drawing, and games in the development of sense experience. Edmund Coote, John Brinsley, John Dury, Charles Hoole, and Sir William Petty from various approaches put emphasis upon actual perception of things rather than the mere study of words, the use of English in the study of all school subjects, the grading of subject matter and division of pupils into classes so that their abilities might be more appropriately considered, and the lightening of discipline so that learning might become more pleasant and thus more effective. Actual practice in the school seldom, if ever, came up to the proposals of the educational reformers, but their importance is none the less real. Their ideas took root among later educators, who could achieve greater success because the new cultural situation was more favorable. Herein lies, perhaps, one of the great values of educational theory.

CHAPTER XI

THE REFORMATION IN AMERICA

Currents of life and thought in America in the seventeenth century were so closely related to those in Europe that the founding of America should be considered as a part of the broader aspects of the Reformation as discussed in Chap. IX. It is important to remember, not only that American culture rested originally upon European institutions and ideas, but also that these foundations were laid during the Reformation rather than during some other period in history. For example, the institutions of Reformation Europe that were transferred to America reflected the new commercial currents of Reformation culture rather than medieval culture. This meant that the feudal institutions of property ownership and class stratification never gained a great foothold in America.

It was extremely important, too, that the people who first came to America were prompted basically by a colonizing or trading motive rather than by a military motive. This meant that life in America was dominated by civil concerns rather than by the kind of soldiers of fortune who led armies of conquest into Mexico and Peru primarily for the purpose of extorting as much gold and wealth as possible from the subject population. As a consequence, the political ideals of an incipient constitutionalism were transplanted from England to America. Likewise, it is important for the understanding of American culture to realize anew how much a part of American life was the characteristic Reformation emphasis upon religious ideals and sectarianism. This meant that much of American culture has been affected by a large admixture of quite heterogeneous religious outlooks. All these factors tended to mold American culture from its very beginnings in ways that are most important for modern American education.

THE INSTITUTIONS MEN LIVED BY

Inasmuch as the founding of America was a characteristically Reformation phenomenon in which political, economic, and religious factors were so closely interrelated, the task of identifying and describing the

distinctively *political* institutions is a difficult one. The motives that sent English, Scottish, Dutch, Swedish, German, French, Finnish, and other colonists to America in the seventeenth century were a result of the complicated events of the Reformation in Europe. Some came because of political or religious persecutions at home; others came in the hope of greater economic gain than was possible at home; and still others came in a spirit of adventure or desperation or compulsion. Some were sent out to gain colonies for the political and economic ends of the homeland, and others chose to come in order to establish the kind of constitutional political institutions that had been expressed in theory at home but had not operated in practice for their particular group. A desire for religious freedom motivated many to come to America to practice the kind of worship that was forbidden at home. Some of these revealed a typical Reformation sectarianism when they refused to allow religious dissent from *their* way of belief once they had been able to establish in the New World the kind of religion they wanted.

Political Institutions

New England. The political institutions set up in New England in the seventeenth century were a curious mixture of authority, stemming from Calvin's theocratic conception of the state, and the constitutional liberties being won by Englishmen in Parliament at home. The Puritans who settled in New England were imbued with Calvin's doctrine of theocracy, according to which it was felt that the state should be subordinate to the church. In this conception the state was viewed as the civil arm of the church, to do its bidding and enforce its pronouncements. In the "True Blue Laws of Connecticut" (1672), for example, the state imposed the death penalty for such crimes as blasphemy, worship of false gods, witchcraft, and insubordination to parents.¹ This theocratic conception of the state enabled the church to use the civil authority to provide religious education as the Puritans conceived it in Massachusetts and Connecticut.

The structure of the theocratic state is revealed further in the political institutions organized in New England, the best example of which is the system set up in Massachusetts. The charter for the Massachusetts Bay Company vested the government in a governor, a deputy governor, and the freemen (stockholders) of the company organized into the General Court, which was the legislative branch of the government. The aristocratic and religious basis in this arrangement is shown by the laws that gave voting privileges only to those male persons who were

¹ See A. B. HART (ed.), *American History Told by Contemporaries* (The Macmillan Co., New York, 1929), Vol. I, pp. 488-494.

landowners *and* church members. The estimate has been made that even in 1674 only about one-fifth of the men in the colony fulfilled these requirements for the suffrage. Thus, there was no popular government in the modern democratic sense; government favored the landowning group. At various times the settlers had to win the right to vote by petitioning and arguing for it. When the original charter was revoked and a new royal charter was issued in 1691, the government was vested in a governor appointed by the king and a popular assembly elected by the property owners. The religious qualification for voting was abolished, and only the property qualification remained. This change reflected the "Glorious Revolution" of 1688 in England, when James II was deposed by Parliament and William and Mary were made joint rulers.

Even before 1691 a resistance to the absolutistic doctrines of the theocratic state was being expressed in America by various individuals and groups. Constitutionalism and civil liberties were more fully expressed by the spirit of separatism than by the autocratic spirit of the theocrats. The separatists believed that the state should deal only with public or common affairs and that the individual should have the greatest amount of personal freedom in his beliefs without coercion from the state. They denied the right of the Puritan churches as well as the Catholic Church or Church of England to determine authoritatively the religious beliefs of individuals. Therefore, they argued, the church and the state should be separate in order to maintain the largest measure of toleration and civil liberty. It was this separatist, or independent, strain in American culture that laid the foundations for American toleration, rather than the Calvinist-Puritan strain of New England.

The Pilgrims who settled in Plymouth were Calvinist in general religious outlook, but they were more separatist in practice and believed in a more individualistic democracy than the Puritans. The spirit of independency was further expressed by Thomas Hooker, who objected strenuously to the autocratic role of the Massachusetts magistrates. He led the congregations of Cambridge, Dorchester, and Watertown to Connecticut, where they founded Hartford in 1636. Roger Williams in his labors to found Providence in 1636, Anne Hutchinson at Portsmouth in 1630, and the Quakers who arrived in the middle of the century were all further exponents of the individualistic freedom of religious conscience as represented by the separatist movement.

Middle colonies. The political institutions of New York were established first by the Dutch West India Company, which sent over its first permanent settlement in 1630 and directed in large part the affairs of New Netherlands from Holland. A Swedish trading company was formed in 1624 under Gustavus Adolphus and sent settlers up and down

the Delaware River from 1638 on. In 1655 the Dutch governor of New Netherlands wrested control of the Delaware from the Swedes, but in 1664 the English took over all of New Netherlands and made it an English royal colony under the name of New York. After 1664 New Jersey became an English royal colony, with its mixture of Quakers, New England Puritans, French Huguenots, Swedes, Finns, Germans, Scotch-Irish, and English.

Pennsylvania received its name and a great impetus to settlement from William Penn who, despite being a Quaker, received a large grant of land from Charles II. Penn's advertisements of free government, economic opportunity, and religious freedom in his land induced many to flock to Pennsylvania, beginning in 1681. Pennsylvania had attracted 7,000 to 8,000 settlers by 1685 and rapidly became one of the most populous colonies, made up as it was of many different nationalities and religious sects. Before 1700 not only Quakers but English, Welsh, German, French, and Dutch with their own distinctive religious beliefs poured into eastern Pennsylvania. After 1700 thousands of Germans, central Europeans, and Scotch-Irish went into the central and western regions of Pennsylvania, giving it a highly varied and heterogeneous population.

Southern colonies. The London Company took the lead in settling Virginia for commercial purposes at a time when England very much needed raw materials. A governor and a council of wealthy families were set up soon after the London Company was formed in 1606-1607, and by 1619 a representative assembly called the House of Burgesses was established as well. The aristocratic council became the upper house and the representative assembly the lower house of the legislative branch of the government. The colony was divided into counties in each of which was a court of justice. The lower house was made up of two representatives from each county elected by the free (property-owning) citizens. Late in the century North Carolina and South Carolina were established on a similar pattern, and in the eighteenth century Georgia was founded. Maryland was founded by a grant of land to Lord Baltimore in 1634 as a haven for Catholics, but other colonists poured in so rapidly that by 1700 the Catholics were outnumbered by Puritan and Anglican settlers.

Although, in general, commercial motives were strong in sending persons to the southern colonies, the political-religious events in England had much to do with stimulating emigration to the Anglican colonies of the South. Just as the Puritan exodus to New England was accelerated by the persecution of Puritans by Archbishop Laud in the 1630's, so the establishment of the Puritan Commonwealth in 1649 tended to drive Anglicans and royalists to the southern and middle colonies during the

1650's. Likewise, the revocation of the Edict of Nantes by Louis XIV in France enriched America by sending many French Huguenots to the middle colonies, and the Thirty Years' War in Germany (1618 to 1648) eventually sent many Germans to America hoping for a greater measure of religious tolerance.

Economic Institutions

The fact that so much of the early settling of America was conducted under the sponsorship of trading companies formed in England, Holland, and Sweden reveals the part that the New World was playing in the commercial revolution of Europe. Trading companies sold shares to stockholders and merchants whose interests back home were primarily to make money. The quest for colonies in the New World and the granting of charters by rulers to the Massachusetts Bay Company, to the London Company, and to the Dutch West India Company emphasize the close tie-up between governments and the middle class in the characteristic form that mercantile capitalism took in the seventeenth century. When the economic interests of a new merchant class in America came into conflict with the economic interests of the merchant class in England in the eighteenth century, one of the foundation stones of the American Revolution was laid.

In New England people centered their economic life in towns and in more or less compact social units. Land was granted by the king to the Massachusetts Bay Company, for example, and the land in turn was granted to groups of people who held much of the land in common for joint use as pasturage and for other purposes. The "common," or green, remains a prominent feature of many present-day New England towns. The farmers often lived together near the meetinghouse, church, and school and went out to work their farms, which radiated from the populated center. This provided a degree of community spirit not found in the same degree in the southern colonies. Similarly, such a community became much more self-sufficient in providing their own food, clothing, and shelter, for a variety of skilled workmen became an integral part of the town life, providing useful articles for other members of the community. The weaver, the blacksmith, the carpenter, the shoemaker, the wheelwright, the cooper, the tanner, the baker, and many other skilled artisans made it easier for New England economic life to become fairly well diversified. It could thus support merchants, farmers, sailors, fishermen, shipbuilders, and the like. This need for skilled labor rather than unskilled labor meant that slaves never became the economic asset in New England that they did in the South.

Two things, then, should be noted concerning the population of seventeenth-century New England. One is that the class structure of society

in England was transferred to New England as well as to the South. The other is that the seeds of a more democratic framework for society are evident in the policy of town making and land granting. Three rather distinct classes appeared in New England, somewhat parallel to the classes of old England. These were the aristocratic upper classes (clergy, magistrates, landed gentry, and merchants), the free classes (skilled artisans and freehold farmers, or yeomen), and the lower classes (unskilled labor, renters, indentured servants, and other unfree workers). In general, the lowest class had no vote because they owned no property, but the artisans and yeomen gradually fought for and gained the vote and thus represented an independent individualism that could never be entirely controlled by the theocratic leaders of the upper classes. The land policy of granting free land to small holders so bolstered the free classes that a large share of economic democracy was achieved and became a firm basis upon which later political and social democracy could be built.

These democratic tendencies, however, had to struggle hard against the privileges imported from England by the upper classes, which gave them preferential status in the matters of voting, less severe punishments for minor and major offenses, and certain distinctions in matters of title, dress, and seating in church. These distinctions in social and political status eventually led to a conflict of interest between the agricultural interests of the backwoods farmers and the commercial interests of the towns and between the skilled artisans and the merchants within the towns. Education reflected these economic conflicts in the eighteenth century.

The middle colonies paralleled somewhat the economic and social patterns of New England, but in the South a somewhat different pattern emerged by the beginning of the eighteenth century. In Virginia, for example, the original population was similar in class structure to that of England. Contrary to the usual conceptions, the social stratification of life in seventeenth-century Virginia was not much different from that of New England. Not many more of the aristocratic classes appeared in the South than appeared in New England, and the great majority of people were free landholders. The economic systems of Virginia and Maryland in the seventeenth century were based almost entirely upon free labor. It was not until after 1680 and 1690 that wide disparities grew up between unfree labor and the owner classes. This process took place when the profits of trade with England from tobacco cultivation stimulated the desire for the plantation system. Large holdings became desirable because tobacco wore out the land rapidly and it became necessary to let some lands lie fallow after a few crops of tobacco in order to restore their fertility.

With the spread of the plantation system the value of cheap, unfree, and eventually slave labor was heightened. When this happened, the gap between owners and workers was widened in the eighteenth century, whereas the opposite trend was taking place in the New England and middle colonies. When the owner (planter) class realized the value of maintaining large holdings intact, the English practices of entail and primogeniture were imported. Entail restricted the inheritance of landed property to the upper classes and prevented its possession from passing to any other classes. Primogeniture ensured that the whole body of land was passed on to the eldest son and thus further prevented the breaking up of large estates or plantations. The wide, open areas of the tidewater section of the South and the plantation system tended to scatter the population, make town life difficult, and emphasize straggling settlements. All these factors combined to prevent the solidarity of community life that characterized New England and to increase the gap between the worker on one hand and the owner on the other hand. This meant that political, economic, and educational privileges were retained largely in the hands of the "homemade" aristocracy.

Religious Institutions

The Reformation character of American culture in the seventeenth century made it natural for the various churches to be very strongly entrenched in the political structure of the colonies. In New England (outside of Rhode Island) the Puritan Church was the guiding genius of the social institutions that were set up according to Calvinist doctrines. The dominance of the Puritan theocracy is testified to by the "blue laws" of the General Courts in Massachusetts and Connecticut, by the witch hunts, by the punishments and fines levied for religious offenses, and by the general puritanic quality of the life.

Although many of the settlers in New England were separatists, a strict rule of orthodoxy was established by John Cotton, John Winthrop, and others who had determined to impose a state church on New England. Laws required all to attend church whether they were members or not and provided public financial support for the ministry. The clergy exerted great social pressure upon the whole of the public and personal life of the population and was the great shaper of public opinion in all matters, including education. Tolerance was definitely not a part of the religious picture in New England. Dissidents were persecuted on the grounds that their unorthodox beliefs did not entitle them to a part in the political, economic, or moral affairs of the community. A person could not be considered trustworthy unless he embraced the established religion.

The Puritan Church was established as the state church in Massachu-

setts, Connecticut, and later in New Hampshire. Rhode Island was the principal haven of refuge for religious dissenters in New England; there Roger Williams's followers maintained a considerable freedom of conscience. Another seed of revolt had been planted in New England by the Congregational organization of churches, according to which the local congregation was considered to be the ultimate court of appeal in administrative matters. This more democratic type of church organization gradually supplanted the English and Roman conception of an authoritative clerical hierarchy and even opposed the Presbyterian organization, which gave full authority to the presbyters, or elders, of the church. Eventually, the Congregational type of organization began to undermine the authority of the old theocrats.

In the middle colonies a wide variety of national stocks and religious sects prevented the effective establishment of state churches, although in New York the Church of England (the Episcopal Church) eventually was established. The barriers of language, custom, and denomination between the Dutch Reformed, the Anglicans, the Puritans, the Quakers, the French Huguenots, the German Lutherans, the Scotch-Irish Presbyterians, the Swedish Lutherans, and the many other groups that arrived later prevented the dominance of one state church. Although Maryland had been settled by Catholics, a law of toleration was passed in 1647 permitting all Christians to worship as they pleased, but after the turn of the century the Church of England was established by law. This variety and heterogeneity played a large part in the educational development of the middle colonies.

In the South the Church of England was early the established church, although it is estimated that Virginia was the only colony in which the majority of people were actually members of the church. In North Carolina and in South Carolina and later in Georgia the Church of England was established but was never so enthusiastically supported by taxation as was the church in Virginia. Even in Virginia it was difficult for the church to flourish in the seventeenth century because the lack of towns, the sparse population, the poor salaries paid to the clergy, and the primitive conditions of life made it hard to persuade priests to leave their parishes in England. Nevertheless, the Church of England gradually grew more powerful in the South and exerted considerable control over the political, economic, and educational institutions of the day.

Despite the emphasis here upon the establishment of state churches (which was a strong characteristic of Reformation culture), it should be said that in spite of persecutions America did provide a haven for all sorts of religious sects that could not exist peaceably side by side in the Europe of that day. This fact in our cultural history eventually led to the enormously important doctrine of civil liberties and religious

freedom, which has saved America from the worst excesses of the religious wars of Europe. Our achievement in this regard has been great, though our record has been marred with religious antagonisms, persecutions, and bigotry that began with the witch hunts of colonial times and have plagued minority religious groups down to the present.

In this connection mention should be made here of the influence of Spanish Catholic institutions and culture upon America. Too often histories of America and of American education have neglected the Spanish influence upon American life. Admittedly, the Spanish did not set the major patterns for American culture and education, but in these times of world interdependence it is important to recognize this authentic strain in American history. One cannot live or travel in the American Southwest, for example, without being conscious of its existence, its contribution to American culture, and the problems that it has bequeathed us. As early as 1565 the Spanish had founded St. Augustine in Florida, but the effectiveness of the Spanish settlement was destroyed by 1650 as a result of Indian wars and the influence of the English colonies to the north.

More permanent and more extensive in its influence was the Spanish activity in the American Southwest. The Spanish governors that ruled Mexico began to push their authority up into New Mexico and Texas before the end of the seventeenth century. Coronado's expedition in 1540 was the culmination of a series of expeditions that established the claims of the Spanish government to much of the western territory of the American continent. Franciscan friars followed hard on the heels of the conquistadors in New Mexico and Santa Fe and soon came into conflict with the governors over the right to control the Indians. The Indians, however, were determined to have some say in their own disposition as shown in the revolts led by Popé from Taos against the control of the Spanish settlers. Although there was much destruction and the Spanish suffered defeat, their influence continued and was later reestablished even more firmly. By 1689 the Spanish had made gains in Texas, and San Antonio was emerging as another center of influence. In the eighteenth century the Spanish and Catholic control was extended over the southwestern territory and much of California, leaving a permanent tradition of great importance in those areas.

THE IDEAS MEN LIVED BY

Authoritarian Collectivism versus Libertarian Individualism

The ideas and beliefs that motivated men's actions in seventeenth-century America clustered about two opposite poles that pulled them

now one way and now another. At one extreme was the authoritarian collectivism of the Puritan theocracy; at the other extreme was the libertarian individualism of the separatists and dissidents of various kinds. These extremes of thought and action revealed themselves throughout the whole range of religious, political, and economic activities of the colonists and laid the foundations for two authentic strands of the American tradition, both of which have come down to us in modern forms.

The religious and political aspects of authoritarian collectivism were revealed best in the absolutist and aristocratic conceptions of the Puritan theocracy. Drawing upon the doctrines of Calvin, such early Puritan leaders as John Cotton, John Winthrop, and Increase Mather set out to exert absolute control over the lives of the Massachusetts Bay colony (authoritarianism) and to weld the diverse social groups into an interdependent community in which each part of the community played its proper role in the whole (collectivism). As a clergyman John Cotton believed that the clergy should be the absolute interpreters of the divine will to the people and that the "sinner" should be completely subordinate to the "saint." Religious conformity was thus of greater import than political rights; the whole community should be ruled by the "best"—the best to be interpreted as the small group of church members, headed by the clergy and magistrates.

As a magistrate John Winthrop supported these aristocratic beliefs and insisted that the magistrates had special talents and insights that qualified them to make decisions unhampered by the will of the common people. If democracy were the best form of government, why had God not ordained it? Instead, God had ordained theocracy to be the best form of government, as witness Calvin's picture of God as a sovereign, arbitrary, and absolute ruler whose will must be carried out on earth through his appointed agents, the state and the church, the former being the servant of the latter. It was God's will that had made the masses of people sinners and the aristocratic few wise enough to direct their destinies. Increase Mather carried on this conception in the later days of the seventeenth century and redoubled the efforts to use the state's authority to stamp out any divergent views. With such ideas as these for weapons the Puritan theocrats were able to maintain a fairly closed system of authority over the Massachusetts community until late in the seventeenth century, when the Puritan edifice began to weaken.

Along with the authoritarianism of the Puritan theocracy the opposite extreme of libertarian individualism found expression among many of the colonists. It was quite natural that the separatists objected both to the authoritarianism and to the collectivism of the Puritan aristocracy.

They wanted to be free from religious control by the state, and their way out seemed to them to lie in emphasizing not only freedom but also individualism. In the religious realm the separatists insisted upon the freedom of religious conscience, and in the political realm they insisted upon a more democratic conception than the Puritan leaders would admit.

Thomas Hooker and Roger Williams insisted that the structure of the state should rest not upon the will of the aristocratic few but upon the sovereignty of the people at large. Their compact theory of the state rested upon the assumption that political authority grows out of a covenant between the people and the state and that the state should be responsible to the will of the majority. They rejected the conception of the divine right of state authority as expressed by the English kings, by the Church of England, and by Puritanism and argued that authority should rest upon the consent of the people as contained in a written contract or constitution to be changed when necessary.

Roger Williams, especially, reflected the logical extension of the original Protestant position of individualism. Believing in a Christian fellowship in which the individual reaches an intimate personal relationship with God, he saw no reason why the state should establish an official church through its civil power; rather, he felt that the spiritual and intellectual life should not be subject to the state or to any one church. Thus, each small group and indeed each individual should be allowed to think and believe as they pleased. These doctrines of civil liberties and religious freedom easily translated themselves into political and economic terms, and the seeds of American individualism were being sown in ground that was most fertile for its eventual flowering.

From the perspective of the twentieth century we can see clearly why the reaction of the separatists should have taken the direction it did. The separatists automatically linked authoritarianism and collectivism together, for all their experience had shown them that, where one was, the other was also. Their quite reasonable response was to throw both overboard and to identify freedom with individualism. It did not occur fully to them that it is possible for collectivism to exist without authoritarianism on a large scale. Hooker and Williams did sense this distinction when they proposed a public-service state to deal with *common* affairs but not with religious conscience. They only faintly perceived that perhaps a collectivism that seeks the welfare of the whole people can at the same time be libertarian and free. In their desire to defeat authoritarianism they focused upon libertarian individualism and overlooked the necessities and desirabilities of libertarian collectivism.

Christian Theism

The dominating world outlook among the colonists was, of course, Christian in its origin despite the divisions and sectarian quarrels that often raged among the various groups. Whether Catholic or Protestant, Calvinist or Lutheran, English or Dutch, church member or not, the whole atmosphere of belief and attitude was that of Christianity. Puritan and Quaker, separatist and Anglican could quarrel about the proper way to reach salvation, but they all agreed that salvation was important. They could disagree concerning the role of the clergyman in bringing the individual into proper relationship with God, but they all agreed that making one's peace with God is the prime purpose of life. The Calvinist may have emphasized total depravity a little more, and the Quaker may have stressed the "inner light" of conscience, but they both operated from a point of view that was at odds with the new philosophy of science that was developing in Europe.¹

The whole structure of the Christian tradition as developed for centuries in Europe was imposed anew upon American culture with every new boatload of colonists. For these colonists took for granted that the universe is made up of a material and natural world that is ruled by a spiritual and supernatural world. They assumed and were constantly reminded by their preachers that human nature is also divided into material and spiritual elements, the body partaking of nature and the soul linking man's spirit to the highest spirit of all. Calvinism was perhaps more gloomy and pessimistic than any other sect about the inherent depravity of human nature, but all Christian faiths put *some* stock in the Fall of Adam and hence of all mankind. Finally, it was assumed that all knowledge emanates from God and is implanted in man from without. This meant that the highest type of knowledge is revealed to man through the Scriptures. Thus, learning is a matter of disciplining the mind in such a way that the reason will be prepared to understand the highest reaches of truth. Knowledge of nature or material things was deemed important only as it reveals the higher nature of God and his handiwork. It was this inherited outlook on the world, on human nature, and on knowledge and learning that dominated the education of seventeenth-century America.

Social Role of the Arts and Sciences

The status of the arts and sciences in seventeenth-century America was about what it was among the equivalent classes in England at the same time. Owing to the Protestant emphasis upon learning to read the

¹ For a picture of Christian theism that applies to the American colonies as well as to Reformation Europe, see pp. 98-102, 150-157, and 247.

general literacy was probably fairly high in comparison with the average of the countries of Europe. There is some evidence that about 50 per cent of the men and about 25 per cent of the women in certain counties in Virginia could sign their names to public documents, and the percentage in New England was probably higher. The percentage of college-trained men in New England was probably higher than anywhere else in the world.

Science and superstition. In view of the generally authoritative character of the religious outlooks the sciences did not receive much attention in seventeenth-century America. It is true that several ministers wrote treatises about the interesting flora and fauna that they had observed in the New World, but these could hardly be classed as scientific investigations. The center of greatest interest in scientific affairs was Harvard College, but even here the classical tradition overshadowed the scientific trend, just as in European universities.

Despite the status of scientific knowledge among a few well-educated persons, the great majority of people were constantly plagued by superstition. Belief in the supernatural world led them to believe that secret events went on behind the world of everyday occurrences. Belief in astrology and the mysterious effects of the stars upon human life was widespread, and ghosts, devils, witches, and demons peopled a terrible unseen world, waiting to wreak their vengeance upon the unsuspecting or the careless. When these superstitious fears were linked with the repressions and inhibitions laid upon the people by the authoritarian Puritan clergy, the persecutions for witchcraft were heightened. In the middle of the seventeenth century several hangings of persons accused of practicing witchcraft took place, eight in Connecticut and six in Massachusetts, and at the end of the century these feelings were again touched off by a fanatical clergy in the Salem witch hunts.

Tolerance was not a part of the American scene in the seventeenth century, although the witch hunts did not seem to gain as much ground in the Dutch settlements as they did in New England and in the South. Quakers and other dissident groups were often among those accused of witchcraft, and thus the superstitious motive often became linked with religious intolerance. In general, however, it should be said that a spirit of rationalism and human sympathy ultimately worked to soften fanaticism. After the Salem outbursts a trend toward a more liberal, rational, and humanitarian outlook in the eighteenth century began to replace the superstitions and intolerances of the seventeenth century.

Classics and vernacular. The respect for the classical languages as basic to scholarship and to religion was carried from England and Europe to America. The Protestant zeal for getting at the sources of faith in the original languages of the Scriptures promoted the Humanistic out-

look among those who could go on to advanced education. It is interesting, in this connection, to note that a Boston bookseller in 1684 ordered among other books 100 copies of Latin readers, 50 copies of Cato, 20 Latin rhetorics, 18 Greek grammars, and 50 Latin grammars. The grammar schools and Harvard College became the repositories of the religious Humanism that sponsored the study of the classics. The spoken language of the colonial peoples was, of course, the language of the country from which they came, English, Dutch, French, German, Swedish, and so on. From its very beginnings the polyglot character of the American language was being formed. However, the English tongue gradually came to be the most common language, and the American vernacular came to have English as its base with all the variations that have since come into the "king's English" from the various elements in our population.

There seems to have been relatively little reading of the new vernacular literature that was being created in Reformation Europe. Part of this neglect may have been due to a general lack of time for reading in the face of the hard frontier life; part was doubtless due to the superior claims of religious literature upon the time of the reading public. A printing press was established in Massachusetts in 1639, and for some 30 or 40 years approximately half the books were religious in nature. In many families, of course, the Bible was virtually the only reading matter available. When books were expensive and most of them had to come from abroad, the careful person was likely to be sure he got his money's worth from the tried and true "classics" of the past rather than risking his time, his money, and his morals on such newfangled authors as Spenser, Marlowe, Shakespeare, Jonson, and Dryden.

The artistic products created by the American colonists themselves were mostly inspired by Old World outlooks rather than by the New World. Most of the "literature" was religious in tone and content. What poetry there was, in the hands of an Anne Bradstreet or a Michael Wigglesworth, was likely to be stolid and gloomy. History took the form of letters, biographies, and sermons. Architecture in New England and the South copied the English models in houses, churches, and public buildings. In New Netherlands the models were Dutch, and in Pennsylvania they were German, as each national stock built in the image of what it had known. Music in New England was dominated by the hymns of the church, but the usual interpretation that New Englanders had no other music has been recast somewhat by recent investigations. In the South, dance music came to play a part in the social life of the plantations and scattered towns. In general, the relatively barren status of the arts in colonial society was reflected in the neglect of the arts in colonial education.

ORGANIZATION AND CONTROL OF EDUCATIONAL INSTITUTIONS

The peculiar combination of church and state control that characterized Reformation education in Europe was transplanted to America. Interestingly enough, the main examples of state control of education were found in the authoritarian collectivism of Calvinist America, rather than in the doctrines of libertarian individualism as reflected in Rhode Island, where no steps were taken at this time toward state control of education. It was not until the eighteenth and nineteenth centuries when the collectivist ideal was joined with humanitarian liberalism that the idea of a democratic system of schools supported by the state appeared. Likewise, the two-track conception of different schools for different classes of people appeared in America as a result of the class structure of the colonies, but this aristocratic conception was not destined to become firmly fixed. When democratic political and economic institutions began to appear, a more democratic conception of education took form.

Civil Control of Schools

The greatest stimulation to education by civil authorities appeared in New England, where the Calvinist ideals of religion and education prevailed. At first the initiative in establishing schools was taken by the various towns, and then the colonial legislatures added their influence and authority to the process. As early as 1635 the town of Boston voted to establish a school to be supported by private subscription and by the income of a parcel of land set aside for this purpose by the town. Before the end of the century some 30 New England towns had made similar provisions for the establishment of schools; the earliest of these were Charlestown, Salem, Dorchester, New Haven, Hartford, Cambridge, and Roxbury. The authority exerted by the town meeting in general assembly was often administered by the selectmen or an interim school committee. The principle was soon fairly well established in New England that the towns should not only take the initiative in seeing that schools were established but also take at least partial responsibility for supporting them. Financial support came from several sources, tuition from those parents who could afford it, rate bills levied upon those who could afford it, in proportion to the number of children in the school and the amount of time spent there, income from town lands or fisheries or tolls, fines and licenses, and property taxes.

The next step in civil control of schools came when the colonial theocratic legislatures stepped in to give an impetus to those towns which had failed to establish schools on their own initiative. The Massachusetts Bay colony took the lead in this process in two famous school laws

that had considerable influence upon other colonies. The Massachusetts law of 1642 was the first general law requiring town officials to compel parents to provide elementary instruction for their children. In the law, the state assumed the authority to tell town officials that they had the power over the family in regard to education. The law did not establish schools, nor did it require the towns to establish schools. It did call for compulsory instruction of children by parents or masters; it set up minimum essentials to be taught (reading of English, knowledge of the capital laws, the catechism, and apprenticeship in a trade); and it gave the selectmen authority to enforce the ruling by fines and compulsory apprenticeship.

The principle that education is necessary for the welfare of society was thus stated very early on American shores. Apparently, however, the towns did not respond with enough alacrity to suit the General Court, for five years later another law was passed that went still further in establishing the authority of the state over education. In the law of 1647, the legislature required each town of 50 families to provide an elementary school teacher and required the establishment of a Latin grammar school in every town of 100 families. The law made it legally permissible for towns to levy taxes for the support of the teachers and tried to give teeth to enforcement by providing for the payment of fines by towns that failed to live up to the provisions of the law. When this law is considered in conjunction with the law of 1642, it can be seen that the principle of compulsory establishment of schools had been added to that of the compulsory instruction of children, but as yet the principle of *compulsory attendance at schools* was not enunciated. Parents were still free to educate their own children, to hire tutors to teach them, or to send them to school, as they wished. The state was trying to make it more likely that children would actually receive instruction by making schools more easily available.

In 1650 the colonial legislature of Connecticut passed a law like that of the Massachusetts law of 1647; and New Haven followed suit in 1655, Plymouth in 1677, and New Hampshire, when it was separated from Massachusetts, in 1680. Considerable debate has since arisen as to how important these laws were in laying the foundations of the American public school system. Some believe that they set the legal precedent for the nineteenth-century establishment of state systems of schools; others believe that they were merely tools by which the Calvinist Church made sure that its doctrines would be inculcated in all children. In any case, the important thing is that the state did establish its authority over education. When the established churches were separated from the state in the late eighteenth and nineteenth centuries, the state reasserted and was able to maintain its earlier legal right to control schools. In the

light of later developments the steps that the New England colonies took in the Reformation period were exceedingly important for American education as a whole, even though many towns did not at the time live up to the spirit or letter of the law.

What the New England colonies did was to combine (1) their Calvinist conceptions of education required by a state-church and (2) the English tradition of state control over the apprenticeship of poor children, as expressed in the English Poor Law of 1601. The state in New England was establishing its right to require vocational education through compulsory apprenticeship at the same time as it required education in language and reading. Similar developments took place in Dutch New Netherlands, where at least 12 towns had established their Calvinist schools by 1650. In Pennsylvania the colonial charter stated that the government should establish schools, and a law of 1682 required parents and guardians to teach their children reading, writing, religion, and a trade. The middle colonies, however, were not able to maintain for very long the principle of state control, for large groups of different religious and national stocks insisted upon schools taught in their own language and according to their own religion. This meant that the private and religious control of education became common in the middle colonies in the eighteenth century.

Private and Religious Control of Schools

Just as the New England colonies were the best representatives of civil control of education, so were the southern colonies the best representatives of the policy of private control. The middle colonies not only were middle colonies geographically but in a sense reflected a combination of the other conceptions. After the English took over New York in 1664, the civil policy of the Dutch gave way to the more typical English approach under the Stuart kings of England, and Pennsylvania followed suit as German Lutherans, Moravians, Mennonites, and Scotch-Irish Presbyterians upset the original plans for state education in that colony.

In the South, however, from the beginning, education was looked upon as a private affair to be provided by those parents who were capable of providing it. In this respect the South followed the traditions of England and in general reflected the fact that the Church of England dominated educational policies in the South. Thus, instruction was provided by private tutors when parents could afford to pay them, by any parish priests who had the ability or inclination to do so, and by endowed schools. Several such endowed schools were established by interested persons in order to provide free education for those who could not afford it. Usually the endowment took the form of gifts, bequests of land, produce, or livestock to be used for the sustenance of the teach-

ers. In general, however, "free education" in the South meant charity education for the poor, and upper-class parents therefore naturally did not want free education for their children.

Here was a considerable difference, even in the seventeenth century, between New England and the South that was to have lasting importance. New England built up a tradition of free education as perfectly proper for self-respecting members of the community, whereas a stigma was long connected with free education in the South because of its connection with charity. The only educational concern of the state in the South was for orphans or children of poor and indigent parents who could not take the responsibility of educating their children. In Virginia, for example, an act of the legislature in 1656 stated that an orphan child should be educated at the social level of his parents; if his parents had not been free, the child was to be apprenticed to a trade and given proper moral and religious training. The aristocratic class structure of society was also revealed in several acts that made apprenticeship and religious instruction compulsory for poor children in order to protect the rest of society from a possible vagabond and "dangerous" class. In these respects the South followed the tradition of the English poor laws but did not show the zeal for popular education through public schools that is reflected in the New England laws of the same period.

In some of the colonies, but more particularly in other parts of continental America, the Catholic Church was carrying on its educational and missionary activities. In Maryland, for example, some Jesuit schools were established on an endowed and free basis; but by the end of the seventeenth century the Catholics were a small minority, and their schools had virtually disappeared. In Spanish Florida the Franciscans were soon at work establishing their missions, and by 1606 a classical school was operating in connection with a seminary at St. Augustine. By 1634 several mission schools were flourishing, but they declined by 1650 as a result of the wars with Indians and the English colonies. In New Mexico, likewise, the Franciscans had arrived as early as 1598 and by 1630 had established some 50 missions that carried on active educational work among the Indians until the Indian uprising of 1680 virtually wiped them out. Although the Catholics were not able to maintain their hold in America in the seventeenth century, they set a precedent for the efforts of the eighteenth and nineteenth centuries and bequeathed much of the heritage of Spanish culture that remains in the American Southwest.

Status of the Teaching Profession

The social status of teachers in Reformation America varied widely from place to place and with the type of school. In general, teachers

in New England and New Netherlands were probably more respected than in the South. Everywhere the range of qualifications was very wide, from the poorly prepared women who conducted dame schools to college graduates and ministers who taught the Latin grammar schools. Teachers scarcely ever had enough property or wealth to be listed in tax books or records of wills. In general, their financial status would class them below ministers and the gentry, above unskilled labor, and probably about on a level with such skilled laborers as carpenters, wheelwrights, and masons. Their salaries came from tuitions, voluntary gifts of money, or income from the rental of town lands or perhaps were paid in kind with livestock or foodstuffs.

In general, teachers complained a good deal about their income. Although grammar school teachers usually received more than elementary teachers, the form and time of payment for all were likely to be highly irregular. Consequently, a large turnover resulted; many teachers became virtually itinerants, while many more merely waited for a better job to appear, particularly in the case of young clergymen waiting for a church. The difficulty of making a living entirely out of teaching meant that teachers often had a great many duties in addition to teaching. A survey of the data reveals that teachers also preached, kept records, rang the church bell and dug graves, cared for the sick, served as jurymen, janitors, appraisers, translators, and letter writers, and engaged in tavern keeping, farming, herding, and skilled labor.

Teachers of town schools were usually appointed at town meetings or by the selectmen with the approval of ministers. Teachers of church schools were usually appointed by church officials or clergymen. This meant that the qualifications of teachers were passed upon by towns, by churches, by royal companies, by royal governors, and often by the bishop of London in the case of Church of England teachers. It meant, too, that the most important qualification for teaching was religious orthodoxy. Teachers were supervised and inspected by clergymen, selectmen, and committees that visited the schools to see if students were actually learning correctly the grounds of religion and the rudiments of reading, writing, and arithmetic. Tenure thus depended mainly upon religious orthodoxy and good moral character. In general, teachers revealed about as good moral character as the rest of the population as far as drunkenness, profanity, legal and financial troubles, or crimes of violence or sex were concerned. Most teachers were men, but women also found some place as keepers of dame schools in New England and as substitutes in the summer when the men were in the fields; similarly, the wives of planters in the South sometimes carried on instruction for their children.

Nonschool Agencies of Education

As in all frontier societies, colonial Americans learned relatively little from their schools in comparison with the education that came from the everyday struggle for a living in a new and strange land. The early settlers eventually learned much from the Indians of ways to trap, hunt, fight, and grow the new crops of corn and tobacco. In such pioneer circumstances the younger generation were educated largely in their own local groups and through the traditions that their elders brought with them from Europe. Quite naturally, one of the most important of such groups was the family, which had to be virtually self-supporting within itself or in cooperation with other families. In New England the Calvinist conception of the role of the clergy gave great authority to the ministers in all kinds of matters having to do with the upbringing of children. Thus, rules of conduct, recreations, and punishment were set largely by the family under the leadership of the church.

The town-meeting process also furnished rudimentary political education to those who were entitled to take part. In general, books and written materials were relatively scarce, except, of course, for the Bible, which in Calvinist hands became an important source of reading material as well as being an inspiration and a guide for conduct. Books were not entirely absent, for some of the well-to-do gentry such as John Winthrop built up considerable personal libraries, but the communication of news and ideas was largely through word of mouth, in which process again the clergy took the lead in and out of meeting. In the South, where the population was scattered and sparse, the process of communication was even more difficult.

EDUCATIONAL AIMS, CURRICULUM, AND METHODS

Typical Reformation Aims

As might be expected, the schools in seventeenth-century America from the lowest to the highest were dominated by the religious aims of the churches that controlled them. Whether the schools were Puritan, Dutch, Anglican, Lutheran, Huguenot, or Quaker, the primary aim was to teach the respective grounds of faith to the children. However, the aim to teach children to read not only was religiously inspired but also was grounded in the belief that society and the state were served better by a literate citizenry than by an illiterate one. Thus, the religious was joined with the political in the aims of education, as stated in the Massachusetts law of 1642, in which learning the laws of the land was required along with the requirements of reading and religion.

Typical of the Reformation, too, was the economic aim, which ap-

peared clearly in America in the form of injunctions that children be taught a useful trade and the requirement that children be apprenticed if parents failed to give the proper vocational training. Despite the difficulties of enforcing such requirements, only a society dominated by a middle-class outlook would have been so much interested in seeing that children could support themselves through the practice of useful skills. That such training was not made a part of the school program does not mean that it was considered to be unimportant by the settlers. It merely reveals that a fourth Reformation tradition was at work in directing the aims of American education, namely, the Humanistic emphasis.

The colonists brought with them not only their inherited religious, political, and economic conceptions but the intellectual and scholarly traditions of Humanism. Humanism was entrenched in the Latin grammar schools and in Harvard College from the beginning. It gave a sanction to the study of Latin as a preparation for college and for the professions that would not otherwise have existed in a frontier society. It explains why the colonists kept out of their schools the vocational training they so badly needed, for "education," especially liberal education, had long been conceived as the study of language and literature, especially in Latin. Thus it was that, in the midst of a wilderness, Latin schools were set up and accepted as the proper type of school for upper-class boys to attend, leaving to apprenticeship the job of training for the skilled vocations. This would not have been so likely to happen in a society in which the Humanistic tradition was not strongly present. That it was present was due in large part to the leadership of the churches and clergy and to the desire of the middle classes to achieve and maintain an enviable social position.

Vernacular Elementary Schools

All the colonies in the seventeenth century made some sort of provision for teaching children to read the vernacular tongue. In New England the town schoolmaster and the women in charge of private dame schools taught reading and sometimes writing in English, along with the Puritan catechism. Writing was often too difficult for the ordinary teacher to cope with, in view of quill pens, poor ink, and very coarse paper, or none at all. The law of 1642 said nothing about writing as a general requirement. It became customary in the late seventeenth century for writing schools to appear alongside of reading schools. Boston, for example, established two such writing schools in 1683, both of which also taught arithmetic.

Thus, whereas it can be said that elementary education included reading, writing, arithmetic, and religion, the only subjects that were fairly

common to all instruction were reading and religion. If the child obtained more than that, he was rather lucky. The basic reading materials for children were the Bible, the catechism, and the psalmbook, whenever these were available in written form. As a guide in learning to read, the hornbook became quite popular in New England; the English alphabet and the Lord's Prayer were printed by hand on parchment or paper, covered with horn, and mounted on wood, and the whole was thus easily carried by the child.

With minor variations the same story applied to the Dutch schools in New Amsterdam, which taught the four R's in Dutch, the Anglican schoolmasters and tutors of the South, who taught in English, the Huguenots, who taught in French, the Lutherans, who taught in German or Swedish, and similarly for other religious and national groups. There was little uniformity in the number of hours a day during which schools were open or the number of days a year for which they operated; much depended upon the zeal and sense of responsibility of the teacher and his community. In general, the Calvinist communities were likely to be most zealous in keeping schools open the year round. In the hands of a conscientious teacher, hours were likely to be long and arduous, marked with severe discipline and corporal punishment. "Spare the rod and spoil the child" was the universal maxim. The newer theories of sense realism and educational method that were being formulated in Europe had not yet touched these shores. Pupils of all ages went to the same teacher, who may have taught two or three or several dozen in the same room. The room was usually at the teacher's home, at the church, at the town meetinghouse, or in some specially constructed shelter, which was likely to be very rough and inhospitable in winter or summer.

Classical Secondary Schools

American secondary schools of the Reformation followed the European and English model and thus were called grammar schools or, more correctly, Latin grammar schools. Their major and almost only task was the teaching of Latin grammar. Sometimes such schools had preparatory departments for teaching the younger boys the four R's in English and then concentrating upon Latin. In general, when they appeared in America, these schools had lost the vital influence of Humanism that had characterized the Renaissance schools and the better of the European classical schools. Their main job was conceived as preparatory to college work, although the ideal was often to prepare boys for public service and for any occupation into which they might go. As it happened, in the state of American society at the time, the ministry, the magistracy, or teaching in a Latin school were virtually the only occupations in which Latin was very helpful.

These schools, therefore, for the most part were not particularly adapted to the social situation in which they existed, and it is no wonder that they were not too popular among the great majority of people. As a result, the fines for failure to establish such schools were several times raised by the colonial legislatures of New England in the effort to compel reluctant towns to establish them. Even where they were maintained as town schools, they tended to be class schools frequented by the more wealthy families. They existed not only in New England, where they were most prevalent, but also in New Amsterdam as early as 1659, in Philadelphia, and occasionally in the South, especially in Virginia.

Some grammar schools became well-known institutions, especially the Boston Latin School founded in 1635. Other towns such as New Haven, Hartford, Charlestown, Ipswich, Salem, Dorchester, Newbury, Dedham, and Roxbury had important schools. Perhaps the most famous grammar school teacher of the early period was Ezekiel Cheever, who taught for some 40 years. What went on in his school has had to be reconstructed from the books he wrote and from the testimony of some of his famous students, among whom was Cotton Mather. From these sources it is clear that students probably studied Cheever's own grammar, Lily's *Grammar*, the Bible, Aesop's *Fables*, Vergil's *Aeneid*, Cicero's *Orations*, Ovid's *Metamorphoses*, St. Paul's Epistles, and selections from Corderius and Cato (the fourth-century Latin author of the *Distichs*). The combination of religious books and secular classical authors is clearly in evidence here. Other grammar schools probably approached this curriculum in essentials if not in breadth.

That some grammar schools also taught the rudiments of Greek is shown by the entrance requirements of Harvard College, which included in 1642 the following: the ability to read Cicero at sight, the ability to speak Latin prose and poetry, and the ability to decline Greek nouns and conjugate Greek verbs. Here is the origin in America of the tradition of requiring Latin for entrance to college that was maintained in all colleges throughout the eighteenth century and in most colleges throughout the nineteenth century. Here also is a clear example of the way in which colleges dominated the curriculum of the secondary schools of America, another tradition that persisted throughout most of the nineteenth century and into the twentieth century.

College Education at Harvard

Harvard College, founded in Massachusetts in 1636, was the only institution of higher education in the colonies during the early seventeenth century. Motivated by the Calvinist zeal to provide for an educated ministry and stimulated by the high percentage of university-trained men who had come to Massachusetts (well over 100 by the 1640's), the

General Court founded Harvard by law and gave land, income from ferry tolls, and the proceeds from a tax for support. An endowment in the form of John Harvard's estate and library represented the private interests. Thus, the typical Reformation combination of religious and civil motives was involved in the founding of Harvard, and in its origin it reveals all three of the typical forms of college control in America, denominational, state, and private.

To say that the religious motive in founding Harvard was strong is true enough, but to say that therefore Harvard was merely a training school for ministers is less than true and misses the point of Reformation higher education. It *was* intended that Harvard should provide an education for future ministers, but it also was intended that Harvard should be a general liberal arts college for all who would achieve a liberal education as then conceived. Direct religious instruction was only a small part of the curriculum of Harvard; only five of the first nine graduates became ministers, and in the later years of the seventeenth century the proportion who became ministers decreased. Although the interests of future ministers were not overlooked, it was assumed that a minister should have the liberal arts education appropriate for any other liberally educated man.

The conception of a liberal education is revealed in the curriculum that was instituted in 1642 on the model of the curriculum of an English college. Henry Dunster, the president who formulated the curriculum, was a graduate of Magdalene College at Cambridge. The first college in America combined in its curriculum three major influences from the past: the medieval conception of the seven liberal arts as necessary for a liberal education; the Renaissance and Humanistic ideal of study of the classics as a means of producing an educated gentleman; and the Reformation ideal of religious control of higher education for sectarian purposes and for the preparation of ministers.

The medieval seven liberal arts were present in the form of grammar, rhetoric, logic, arithmetic, geometry, and astronomy (only music was absent). Latin grammar was expected to be mastered in the grammar school, for Latin was the language of instruction at the college, but the college curriculum also included the study of Greek and Hebrew grammar. Rhetoric and oratory had a large place in the declamations that were considered as training for preaching and the art of persuasion. By the end of the seventeenth century logic was present in the study of Aristotle, Ramus, and Descartes and was practiced in the disputations regularly held. Arithmetic and geometry were taught but sometimes rather neglected because they were looked upon as practical subjects. Astronomy at first was virtually that of Aristotle, Ptolemy, and Dante, but by the middle of the century Copernican astronomy was filtering in.

With the use of a telescope acquired in 1672, one of the tutors, Thomas Brattle, made observations of the Great Comet of 1680 that were of value to Newton in his work.

In addition to the seven liberal arts, the philosophy of Aristotle as rediscovered in the thirteenth-century universities was present in the form of physics, politics, ethics, and metaphysics. Ancient history and Aristotelian botany were given some attention on Saturday afternoons. Thus, it can be seen that Harvard reflected little of the great scientific discoveries and theories that were so much a part of Reformation developments in Europe. In this regard, however, Harvard was not different from most European universities, which were also neglecting science in favor of the classical languages and philosophy. Greek and Hebrew represented the Renaissance interest in the classics and were considered to be of general cultural value for a scholar as well as of practical value for ministers who would be well grounded in the original languages of the Scriptures. The study of specific Calvinist religious doctrines, however, was confined largely to Saturdays, when all undergraduates studied the catechism; the only other religious study was the reading of selections from the Old and New Testaments in Hebrew and Greek. Genuine theological study for ministers was not present in the curriculum but was usually pursued after graduation as an apprentice to a minister or in residence as a graduate at the college.

At first Harvard had only three classes, but the fourth class was added by 1655; thus the college followed the European model of 4 years of undergraduate work leading to the B.A. degree. After a 3-year interval, the M.A. was granted upon payment of a fee, defense of a thesis, and evidence of good moral character. Often the first item was the most important requirement. The undergraduate curriculum was completely prescribed, all students in a class studying the same subjects at the same time, and all taught, in Dunster's day, by the president himself. The college was small in the seventeenth century, varying from 20 to 50 in number, and the students were considerably younger than now, probably varying from thirteen or fourteen to seventeen or eighteen years of age. Discipline was severe, and riots were frequent; much of the restlessness doubtless resulted from the fact that the methods of teaching were almost entirely bookish. The students listened to the instructor read the assigned books, they read the books themselves, they recited from the books, drew up outlines from the books, disputed on questions drawn from the books, and gave declamations.

Much has been made of the fact that students were classified at Harvard according to the social status of their parents. Some evidence has been compiled to show that students were seated in classes, in the dining hall, allotted bedrooms, and assessed fines on the basis of their fathers'

rank, wealth, and occupation, with the sons of clergymen, magistrates, and gentry at the top of the list. Insofar as this is true, it reveals the aristocratic nature of colonial society, but the best historian of Harvard, Samuel Eliot Morison, has pointed out that the classification of students in the seventeenth century was as likely to be according to intellectual qualifications as social distinction and that the social rank of parents did not play a great part until the middle of the eighteenth century.

Harvard has been described in such detail because the ideals of a liberal education so conceived have affected American colleges and universities down to the present time. These ideals had great value in bringing to America the fundamentals of the Western intellectual tradition, but they were accepted so wholeheartedly and defended so vigorously against criticism that higher education was slow to respond to great new influences that appeared in the life and culture of eighteenth- and nineteenth-century America. The close connection between religion and Humanism kept the colleges from adapting themselves readily to new economic, scientific, and philosophical currents. Prospective lawyers and physicians found no specific training at Harvard but had to rely upon apprenticeship to practicing lawyers and physicians, and prospective surveyors, navigators, shipbuilders, farmers, and businessmen, to say nothing of skilled workers, found no help in preparing for work that was so important to America. Their needs were not to be met by higher education until later centuries.

PART II
RECENT EDUCATIONAL TRADITIONS IN EUROPE
AND AMERICA

CHAPTER XII

THE ENLIGHTENMENT IN EUROPE

THE INSTITUTIONS MEN LIVED BY

The eighteenth century witnessed great political and economic rivalries conducted virtually on a world-wide scale. The great powers of the eighteenth century were England, France, Prussia, Russia, and Austria. Most of the wars were fought by these countries in different combinations, but underlying all of them was a steady and growing duel between England and France for colonial supremacy. By 1715 the religious rivalries that marked the Reformation had largely given way to rivalries founded upon the commercial interest in gaining colonies and the nationalistic interest in political superiority.

Political Institutions

Foundations of the British Empire. As a result of almost constant warfare England emerged as the greatest colonial power of the eighteenth century. Among the most important wars on an international scale that involved America were the War of the Spanish Succession (the American version was called Queen Anne's War, 1701 to 1714), at the end of which the Treaty of Utrecht gave to England Gibraltar and Minorca in Europe and Acadia, Newfoundland, and Hudson Bay in America; the War of the Austrian Succession (King George's War, 1744 to 1748); and the Seven Years' War (the French and Indian War, 1754 to 1763), by which England gained India and Canada from France and Florida from Spain under the terms of the Treaty of Paris. In the War of the Austrian Succession England and Austria fought against France and Prussia; in the Seven Years' War England and Prussia fought against France and Austria. The Treaty of Paris in 1763 made England the world's leading commercial and colonial power, a position that was maintained despite the loss of the thirteen American colonies a few years later after the American Revolution.

Meanwhile, at home, Parliament was increasing its political power, and the commercially minded middle class was increasing its power in Parliament. Whereas Louis XIV had been able to control the middle classes for his own purposes in France, the middle class in England was

virtually using the king, the army, and the navy for colonial and commercial purposes of its own. After the reigns of William and Mary (1689 to 1702) and Anne (1702 to 1714), Parliament brought in the Hanoverian monarchs, George I (1714 to 1727), George II (1727 to 1760), and George III (1760 to 1820), who also proved to be more or less responsive to the middle-class interests of Parliament.

Absolutism and revolution in France. At the opening of the eighteenth century France was the great nation of Europe and of the world. Through astute maneuvering Louis XIV built up an extremely centralized system of government in which he exerted all the power. The ideology of divine right was elaborated by Louis XIV to justify his absolute power, which included economic and religious affairs as well as political. High tariffs, minute and exacting regulations over commerce and business, high taxes, and rigid controls over the army, navy, and finances were devised in the attempt to make France self-sufficient as well as highly centralized. However, the series of wars with England and other countries during the long reign of Louis XV (1715 to 1774) lost for France not only her colonial supremacy but her commanding place in Europe—until the day of Napoleon.

Domestically, France was being torn by several trends that eventually came to a head in the French Revolution. The *bourgeoisie*, or middle class, became very strong in France in the eighteenth century. The businessmen, merchants, manufacturers, tradesmen, and artisans were beginning to thrive despite the restrictions laid down by the Bourbon kings. The middle class, sensing its growing power, began to clamor for free trade and release from governmental restrictions. In addition, the peasant classes were growing stronger than in most of the other countries of Europe; about 70 per cent of the peasants in France had gained their freedom from serfdom, and they owned about two-fifths of the land. When upon their requests for change they encountered the resistance of the kings, the nobility, and the clergy, the middle classes and peasants were ready to take more drastic steps in order to achieve greater freedom.

When the economic disasters of the colonial wars abroad were combined with increased governmental extravagance, heavier taxation, and continuing social injustice at home, the situation was ripe for revolution. Thus, when Louis XVI became so bankrupt in 1789 that he called the States-General together for the first time in 175 years, the Third Estate determined to remain in session until constitutional reforms were achieved, proclaimed itself the National Assembly (1789 to 1791), proceeded to abolish feudal obligations and privileges, drew up the Constitution of 1791 that established a limited monarchy, abolished primogeniture, freed the remaining serfs, confiscated the lands of the church, trans-

formed the clergy into state officials subject to election by the people, and suppressed the teaching orders of the church. The Declaration of the Rights of Man enunciated the liberal principles that lay at the basis of most of the democratic constitutions of the nineteenth century: Men are born and remain free and equal in their rights. The principle of sovereignty rests with the people. Since liberty consists in the freedom to do anything that does not injure others, there should be freedom of religion, the press, and assembly. Laws are the expression of the general will, and therefore the people should participate in drawing up the laws. The rights of the people, especially the rights of property, shall not be infringed except by due process of law.

The middle classes would have been content to stop with these political and economic reforms, but the laborers and peasants wanted to go further; and go further they did in the second and more radical phase of the French Revolution, which was represented by the Legislative Assembly (1791 to 1792). At this time the division of political parties became marked between the Girondists, who were moderate middle-class republicans (named for the department of Gironde), and the Jacobins, who were the more radical democrats (named for an old Jacobin convent in Paris where they met). According to the written provisions of the Constitution of 1791 the king had been forced to accept a constitutional monarchy based upon the sovereignty of the people. Louis XVI professed to accept this constitution, but he soon tried to flee with Marie Antoinette in the effort to join the aristocratic *émigrés* and gain support from foreign powers friendly to royalty. Austria and Prussia went to war with France in order to preserve the feudal rights of the German nobility on the borders of France in the Rhineland.

Thereupon the third phase of the Revolution was projected and the First Republic (1792 to 1804) was declared by the National Convention, which executed Louis XVI and Marie Antoinette, issued the Constitution of 1792, and carried on a war against a coalition of Austria, Prussia, England, Spain, and Holland. Meanwhile, the radical Jacobins won their civil war against the more conservative Girondists. The Jacobins were able to carry on the foreign war and ruled France with an iron hand. They proclaimed the Constitution of 1793, which went further than the earlier constitutions and established universal suffrage with no property qualifications for voting. Their Reign of Terror lasted from June, 1793, to July, 1794, under Robespierre, until he himself was guillotined. The middle-class reaction set in, and power was seized by the moderate forces, with the help of Napoleon.

Still under the guise of the First Republic, the Directory (1795 to 1799) was established by the middle class in order to prevent both the royalists and the popular democrats from regaining power. When Na-

napoleon emerged as a great military leader by his prosecution of the wars, the third phase of the republic began under the Consulate (1799 to 1804) which gave Napoleon virtually dictatorial powers under the Constitution of 1799. In 1802 Napoleon was made consul for life, and then he in turn ended the life of the First Republic by making himself emperor in 1804. The middle classes had won more than they had bargained for when they backed Napoleon. However, the French Revolution had loosed upon Europe the ideals of democracy and had served notice that the French people intended to attack monarchy wherever it might be found and to aid the peoples of Europe to wrest their liberty from the despotic rule of their tyrants. *Liberté, égalité, fraternité* were to prove powerful companions despite the setbacks they received at the hands of kings, would-be emperors, reactionaries, and dictators in many lands.

Rise of Prussia. Situated strategically in central Europe and at the same time a crossroads for the warring armies of eastern and western powers, Prussia emerged from the eighteenth-century wars not only intact but strengthened and expanded. Until this time, Brandenburg had been a strong feudal state, and the elector of Brandenburg had played a large role in the politics of the Holy Roman Empire, but the shape of things to come became clearer when Frederick I (1688 to 1713) became king of Prussia as well as elector of Brandenburg. The Hohenzollern line of Prussian kings was launched. Under Frederick William I (1713 to 1740) the Prussian kingdom was highly centralized, a civil-service bureaucracy was established, and a strong army was developed. Then under Frederick II (the Great) (1740 to 1786) Prussia became a first-rate political and military power to be reckoned with thereafter in the destinies of Europe.

In the War of the Austrian Succession, Frederick the Great allied himself with France and Bavaria against Austria and England to gain principally the potentially powerful territory of Silesia. Later he started the Seven Years' War as a "defensive" war to keep Austria from regaining Silesia. His "walking agents" who explored Bohemia prior to the war forecast the use of "tourists" by Hitler in mapping territories that were later to be invaded. After fighting Austria and Russia Frederick gained their consent to the first partition of Poland in 1772. The arguments that he used to justify the partition foreshadowed Nazi arguments of the 1930's and 1940's. He argued that Poland was decadent and thus better off under German rule. The land belonged to Germany anyway because of its conquest by the Teutonic Knights some centuries earlier. Prussia had to go into Poland first in order to prevent Austria and Russia from doing so. The whole thing was a matter of geographic and military necessity. Finally, all Europe would profit from a strong Prussia, which would be a bulwark against Russia.

In addition to expanding Prussian territory and attempting to bring other German and non-German states under his control, Frederick tried to make Prussia self-sufficient by making internal improvements, levying protective tariffs, distributing free grain, and lowering taxes. He was thus able to build up a strong paternalistic monarchy in Prussia that not only strengthened his own power but served to mollify the discontented merchants and lower classes to such an extent that no revolutionary movement was able to achieve the strength that it had in France. Frederick the Great thus became known as one of the "enlightened despots" of eighteenth-century Europe.

Rise of Russia and decline of the Holy Roman Empire. In the latter part of the seventeenth century and increasingly in the eighteenth century, Russia under Peter the Great (1682 to 1725) began to expand westward into Europe, taking land from Poland and Sweden. Peter tried to introduce Western customs and culture into Russia by sending students abroad, inviting Europeans to Russia, making trade agreements, changing the Russian calendar to fit Western arrangements, introducing Western clothes and number systems, and establishing schools, hospitals, and printing presses. Symbolizing his attitude, Peter established St. Petersburg (Leningrad) on the western frontier as the center of Russian life in place of the traditional Moscow. Catherine the Great (1762 to 1796) continued the Westernizing process whenever possible and hoped to reform the laws and establish schools throughout the land. Along with Frederick the Great and Joseph II of Austria, she too has sometimes been called one of the enlightened despots of the eighteenth century.

The Holy Roman Empire had become little more than a name for the geographical territory of central and southern Europe. As France had gained in power, the Hapsburgs had lost it. Emperor Leopold I had not been able to realize his dream of uniting Germany because of the antagonism of France on the west and the increasing threat from the Turks on the east. Spain had declined by the end of the seventeenth century and continued gradually to be stripped of her colonial empire by the rising Western powers in the eighteenth century. The Italian states continued to decline, for the frequent invasions by French, Austrian, and Spanish armies kept Italy divided.

Economic Institutions

Basic to the economic developments of the eighteenth century were the increasing power and prestige of the middle classes, the merchants, the businessmen, the entrepreneurs, the manufacturers, the tradesmen, and the artisans. Significantly, the greatest nations of the eighteenth century were those where the middle classes became strongest, England,

France, and Prussia. The commercial revolution that had launched capitalism in the Reformation was coming to its culmination in the eighteenth century. The basic ideology of mercantile capitalism during the Reformation had caused the middle classes to rely upon the state to gain colonies that would supply more materials for the manufacturers and provide markets for the finished products. As the middle classes grew in wealth and power, they desired release from the restrictions of government control. This stimulated the ideology of laissez-faire capitalism that appeared in the eighteenth century (see pages 316 to 318).

The desire for colonies had led to the colonizing activities of England, France, Spain, Portugal, and Holland in the Reformation period. In 1687 England held the eastern coast of North America; France had India, eastern Canada, and the central part of what is now the United States; Spain held what is now the western United States, Mexico, Central America, and western South America; Portugal had eastern South America; and Holland had the Dutch East Indies. By 1783 the balance of colonial power had shifted as a result of the colonial wars; France had lost India and its eastern possessions in America to Britain; and Britain had lost the 13 American colonies. After 1783 the colonial situation remained fairly stable until the 1880's, when there began the new period of colonial imperialism that contributed so much to the World Wars of the twentieth century.

Within the countries of Europe the peasantry were generally in a desperately poor condition. The nobles still had great economic and social privileges, exemption from taxation by the monarchies, and the privilege to tax the peasantry. The peasants paid taxes to many agents, to the lord who owned the land, to the church, and to the monarchy. In France, for example, the feudal lords had the right to tax all commerce that passed through their lands; goods on the way to Paris were subject to as many as 20 duties from lords, towns, and owners of bridges and roads on the way. The collection of taxes was often farmed out to bankers or business agents, who would advance money to the government and then were allowed to collect as much tax money as they could to repay them for the advance loans. In the face of such conditions the peasants and middle classes of France were willing to support the French Revolution. Likewise, the middle classes in England were anxious to gain control of Parliament in the interests of more liberal regulations concerning trade and commerce.

The artisans and working classes in the cities retained the outmoded guild system and often tried to maintain their long-held monopolies against the encroachments of the capitalistic entrepreneurs, but the domestic system so weakened the old guilds that new associations of workmen began to appear. In the eighteenth century these associa-

tions were largely benevolent organizations designed to help their members in times of distress or illness and to keep the brothers in line in matters of morals and conduct. The organized-labor movement appeared in its modern form principally in the nineteenth century, when the development of industry and the factory system made labor organizations necessary.

Religious Institutions

In most countries of Europe a legally established church was the most common institutional arrangement for religious observances. In Italy, Spain, France, and the countries of the Holy Roman Empire the Catholic Church was the state church; in England, the Church of England; in German states, either the Lutheran, Calvinist, or the Catholic Church, as arranged at the Peace of Westphalia in 1648 at the conclusion of the Thirty Years' War.

The most noteworthy institutional development in religion in the eighteenth century was the emergence of many new religious organizations and churches, many of them beginning as reform movements designed to improve the established churches. In German Lutheran lands the Pietistic movement grew up under the leadership of such men as Spener, Francke, and Zinzendorf to revitalize and reform Lutheranism. In England the Methodist Episcopal Church appeared as a similar revivalistic effort to reform the Church of England. Led by John and Charles Wesley, Methodism attempted to replace the formalism and ritualism of the church by more faith, emotion, and feeling. The Baptists likewise gained many followers. The Quakers represented a radical protest against the authoritative quality of most established churches.

Many other religious groups, large and small, began to gain strength and confidence as a result of the more liberal attitudes that developed in the eighteenth-century Enlightenment. These groups contributed their share to the revivalistic feeling that affected great areas of Europe and America. The movement became so widespread that historians have given the name "Great Awakening" to the phenomenon. Hundreds of thousands of people were swept into various religious institutions on the wave of a religious emotionalism that sometimes reached the proportions of hysteria. This movement was a most important institutional phenomenon that affected education in all countries, especially in England, Germany, and America, along with the political and economic developments that have just been described. A missionary spirit stimulated all sorts of educational and philanthropic efforts in informal as well as in organized ways. The Great Awakening touched the masses of people in a vital way that is important to remember in connection with the discussion of Enlightenment ideas that follows.

THE IDEAS MEN LIVED BY

The "Enlightenment" is a term that has come to refer to a whole range of ideas that captured the imaginations of men during the eighteenth century. The Enlightenment was a reaction against the absolutistic and authoritarian regimes of the Reformation. It was a protest against absolute monarchy, against authoritarian economic systems, against rigid social stratification, against religious authoritarianism, against an unscientific world view, against the doctrine of original sin in human nature, and against the domination of intellectual life by ancient and medieval conceptions of truth and knowledge. Underlying these protests was a growing faith in the common man, in science, and in human reason. Thus, this period has also been called the "age of reason" to indicate the hope and faith that man by taking thought could reform his institutions as a means of promoting the general welfare. Out of this humanitarian impulse grew the democratic faith that has served as a groundwork for the great liberal traditions of Europe and America.

As the reformers sought a justification of their revolt against absolutism, they formulated the conception of "natural law" as an instrument with which to attack all forms of entrenched interests. They appealed to "nature" and the "natural rights" of man as superior to the inherited rights of groups that had retained privileges for themselves to the exclusion of the great masses of people. The conception of natural law was borrowed from the new scientific conceptions of the world and applied to nearly all the areas of human activity. Although the middle-classes used these conceptions to further their own interests, their efforts resulted at the same time in enormous strides toward freedom and democracy.

The Enlightenment in Social Ideas

• **Political liberalism.** By the opening of the eighteenth century the doctrines of political liberalism had been set forth clearly and forcibly by John Locke in his *Treatise on Civil Government*. Locke uses the "contract theory" to justify the taking away of the king's absolute powers by a middle-class Parliament. The contract is an agreement by which the citizens delegate authority to the government and in return the government agrees to protect the natural rights of the citizens. The rights that all citizens have by nature are the rights to life, liberty, and property.

According to this constitutional view of the state the government must rest upon the consent of the citizens and should exercise its authority through their representatives. The liberal aspects of Locke's conceptions are revealed in his insistence upon the civil liberties as a natural

right of all citizens. His fear of absolutism is revealed in his doctrine of the "police conception" of the state, according to which its powers are restricted merely to the *protection* of rights; the government may not invade the rights of individuals except to protect the rights of nature. Locke's middle-class orientation is reflected in his claim that property is a natural right and in his definition of a citizen as one who owns property.

Three agencies of government are deemed necessary: The legislature (representing property owners) must define the crimes against the natural rights of life, liberty, and property. The judiciary must mete out punishment for these crimes impartially. The executive must give force to the laws of the legislature and decisions of the judiciary. In case of a conflict among these agencies of government the legislature must be supreme, for it rests upon the sovereignty of the citizens; and if these representatives ever betray the interests of the people, revolution is justified. It is not difficult to see how greatly the framers of the American Constitution relied upon Locke's doctrines of liberalism, constitutionalism, and property ownership.

Among French political reformers Montesquieu wrote his *Spirit of the Laws* to show how laws rest upon the sovereign will of the people and thus should be adapted to the people for whom they are made. He elaborated upon the "checks and balances" among the legislative, judicial, and executive branches of government. Several shades more radical than Montesquieu or Locke was Rousseau. According to his "social contract" the will of *all* the people is the ultimate sovereignty for the state. Natural rights include not only life, liberty, and property but the general pursuit of happiness and welfare of all the people. Since the purpose of government is to improve the welfare of all people, representation in government must be based upon the will of all the people and not just upon that of property owners. This radical democratic conception gave great comfort to the oppressed peoples of France and Europe and greatly affected the American Revolution as well as the French Revolution. The middle-class constitutionalism of Locke and Montesquieu was taken up by such men as Hamilton in America and the democratic humanitarianism of Rousseau by such men as Jefferson. In general, the cause of free, public, democratic education owed much more to the humanitarianism of French liberalism than it did to the individualistic constitutionalism of English liberalism.

Liberalism and laissez-faire capitalism. Whereas French liberalism was motivated by a collective outlook that rested on the belief that if men work together they can improve their common lot, English liberalism rested upon a much more individualistic outlook. This rugged individualism of English liberalism grew out of its greater attention to the

economic aspects of life. Stemming from Locke and reaching its culmination in Adam Smith, the protest against the mercantile capitalism of the Reformation resulted in the doctrines of laissez-faire capitalism. Smith's *Wealth of Nations* makes it clear that individual effort will result in appropriate productivity if it is unrestrained by the government. The individual knows best what is good for himself and for society, and natural laws must therefore not be interfered with, for they will work automatically for the good of all.

Here again is the appeal to *nature*. Human nature is such that man is basically motivated by the economic desire for profit. It is the urge to acquire wealth that makes the world go around; for if man did not have this inherent profit motive, goods would never be produced. The conception of the "economic man" was also basic to other "natural laws" of economics, most important of which was the law of supply and demand. According to this law of laissez-faire economics, prices will always reach their natural level when goods are bought and sold in an unrestricted market kept open for free competition. A seller tries to get the highest price possible, and the buyer tries to get the lowest price. Competition among sellers tends to force prices down, and competition among buyers tends to force prices up: the greater the demand for goods, the higher the price. In order to allow this natural process to operate the government must let business alone—hence laissez-faire capitalism. In France much the same kind of doctrine was preached by Quesnay and Turgot, who gave it the name "physiocracy," which means literally "rule of nature." These doctrines helped to pave the way for the American and French Revolutions.

Thus, European liberalism revealed two major strands, individualistic, laissez-faire liberalism and collectivistic, humanitarian liberalism. The interplay of these two strands has characterized the development of American as well as European political and economic life down to the present time. American businessmen of the nineteenth and twentieth centuries have tended to exalt the individualistic and laissez-faire ideals to the exclusion of the humanitarian ideals, insisting that the public interest rests upon unrestricted private enterprise. Social reformers in political, economic, and educational affairs have tended for two centuries to exalt the humanitarian ideals.

New World Views

Much of the intellectual life of the Enlightenment grew out of scientific investigations and interpretations of the universe that were based upon a new science. Typifying this new science better than anyone else is Sir Isaac Newton, whose epoch-making *Mathematical Principles of Natural Philosophy* was published in 1687. Building upon the immense

advances made by science in the Reformation period, Newton formulated the "laws of nature" in a way that remained scientific gospel until the late nineteenth century. As a result of the elaboration of the "law" of gravitation and the "law" of cause and effect, the universe came to be described as an orderly system of atoms moving in absolute space and time, essentially simple and uniform in structure, obeying fixed laws that operate in a causal and uniform way. The universe was looked upon as a great machine, not subject to caprice, novelty, or divine intervention, but operating naturally and according to mathematical laws. Scientific "natural laws" became the model for scientific and "natural" explanations in other fields of life and thought.

The work of scientists and the popularity of the Newtonian interpretations led to new world views, the most extreme of which was materialism. The materialists (such as La Mettrie, Holbach, and Helvetius) quickly jumped to the conclusion that nothing exists but matter in the form of atoms that operate according to mechanical natural laws. They immediately eliminated all conceptions of a spiritual world, of a soul or a mental substance. At the opposite extreme were such idealists as Bishop George Berkeley of the Church of England. Berkeley bitterly attacked science and materialism and insisted that the essence of the world is spiritual and mental. In justifying religious principles and proving the existence of God, he elaborated the idealistic view that all apparently material objects are really only perceptions in the mind of God. Material objects seem to exist in space and time, because God's mind exists continuously through space and time. Material substances are merely a figment of the imagination, and they change their qualities as perceptions change.

The middle-of-the-road conception of the universe that became most popular with the Enlightenment intellectuals was Deism. The deists, typified by Voltaire, tried to embrace the scientific interpretations of Newtonian science and thus broke with traditional Christian theism but still did not go as far as materialism. According to Deism, the world is a great machine operating according to natural laws, but God is the first cause and initiator of the universe. God is conceived, not as a personal being who created the world in six days and can interfere with it at will, but as the great spirit that lies behind the physical universe, and even God cannot interfere with natural laws once they are in operation. Indeed, it would be a reflection upon the wisdom and power of God to imply that he needs to interfere with his handiwork after it has been created. The deists attacked the miracles, supernatural revelations, and the conception of divine providence that the traditional religions had made so much a part of their faith; they accepted only

what scientific investigation, mathematical description, and the human reason could accept and describe.

Natural Law in Human Nature

The underlying attempt of many Enlightenment thinkers was to conceive of human nature in a way that would be appropriate to the kind of universe that Newton had described. Preeminent in this attempt was John Locke, who followed somewhat in the seventeenth-century tradition of Descartes and Hobbes. Reinforced by Newtonian conceptions, Locke set out to elaborate the laws of human nature in a scientific way. His basic assumption was that human nature is not preformed at birth but is a result of the impact of environment upon the unformed and pliable raw material of the organism at birth. At the same time, Locke did not become an extreme materialist; he believed in a soul and a mind having certain independent qualities, and in this sense he was to the eighteenth century what Descartes was to the seventeenth century. He moved a considerable distance from traditional religious conceptions, but he tried to fit the moral values of the older conceptions into new categories.

Extremists followed Locke just as they followed Descartes. On the subject of the existence of the soul or mind as an independent element in human nature, the materialists went to one extreme. Some materialists like Toland, La Mettrie, Helvetius, and Holbach, said that human nature is entirely materialistic and that no such thing as a soul or mind exists apart from the movements of the body; other materialists like Hartley, who admitted some distinction between soul and body, said that the difference is merely one of degree and not of kind. At the other extreme, idealists like Berkeley said that the essence of human nature is the soul or perceiving mind; the body is dependent for its existence upon the spiritual functioning of the soul. Hume carried Berkeley's conception several steps further and arrived at skepticism; he felt it not necessary to assume the existence of a soul, for the only things that exist are a series of perceptions and experiences. Not only is the material world imaginary, but the soul and mind are imaginary. Thus, the range of opinions concerning human nature began with the belief that human nature is both mind and matter; the materialists believed that human nature is all matter; the idealists believed that human nature is all mind; the skeptics considered it neither.

Perhaps the most important conception concerning human nature in the eighteenth century avoided these questions somewhat and directed itself at the question of good and evil. Here Rousseau's ideas became immensely important, for he reacted violently against the age-old conception that human nature is inherently evil and born in original sin.

Rousseau went to the opposite extreme and insisted that human nature is essentially good, that the child is born with inherent impulses that are right, and that social institutions make the individual evil, grasping, and bad. Here is a "natural law" of human nature that has had enormous influence upon the social and educational practices of the last two centuries. Out of it grew the doctrine that human nature is perfectible and can be made constantly better. When connected with the doctrines of social humanitarianism this belief in human perfectibility became one of the great traditions that leavened the life of Europe and especially of America. It fitted in with the growing belief in the essential equality and dignity of all men and the respect for each individuality that have become a part of the democratic heritage of Western civilization.

Natural Law in Learning and Intelligence

Among the important thinkers concerning the operation of human reason and the way people learn, Locke stands out for his formulations of the doctrines of empiricism. In briefest terms, he stressed experience and environment as the sources of knowledge and learning and attacked the religious and Platonic notions of his day that ideas are innate in all men at birth. Applying Baconian and Newtonian conceptions of science to the study of the mind, he tried to find the natural laws of learning. Impressed by the new scientific description of the world, he maintained that the child is not born with a preexistent mind or soul or with innate ideas concerning God, justice, morality, or other values. Rather, in Locke's view, the newborn merely possesses a blank tablet (*tabula rasa*) upon which perceptions from the outside world are impressed or printed. Thus, ideas, values, and knowledge have their origin in experience of the external world and of other people.

Simple ideas come from two sources, sensation and reflection. Sensations come through the five senses and give rise to simple ideas concerning the shape, size, number, color, and qualities of things in the external world. The inner sense of reflection is the capacity to gain ideas about the inner workings of memory, judgment, and volition in one's own mind. Complex ideas concerning moral conduct and social and physical relationships are then built up as the mind works over the raw sensations and puts simple ideas into more complex combinations. Locke's famous books, *Of the Conduct of the Understanding* and *Essay Concerning Human Understanding*, had great influence upon educational conceptions in Europe and America.

More extreme in their empirical views were such men as Hume, Hartley, and Condillac, whose position came to be known as sensationalism. They put almost exclusive emphasis upon the five outer senses as the

source of ideas and ruled out Locke's inner faculty of reflection. They were thus often bitterly attacked by traditionalists for eliminating the role of the mind and stressing only the body as the instrument of knowledge. A most important aspect of sensationalism is the doctrine of association of sensations and ideas. Developed by Hume and expanded greatly by Hartley, associationism was the precursor of much of the experimental and scientific psychology of the nineteenth and twentieth centuries. To Hartley the basic natural law of learning was the fact that sensations, repeated often enough, leave traces in the nervous system; when different sensations are often enough associated, the occurrence of one sensation will call up a memory of the others. Simple ideas are thus built up into complex ideas merely by association. The principles of associationism sound a good deal like modern doctrines of "synaptic connections," "conditioning," and "frequency and recency."

However, empiricism and sensationalism had not won the day among eighteenth-century thinkers. They were new and startling and were gaining adherents, but the forces of rationalism were still predominant, especially in schools, universities, and churches. Rationalism had its great defenders in such men as the German philosopher, Leibnitz. Leibnitz attacked Locke for saying that ideas are not innate, and he insisted that, although experience may bring out ideas, experience does not create them. Since the universe is a rational, intelligible order created by God, only reason (and not sense experience) can arrive at universal and assured ideas, as, for example, in mathematics. The doctrines of rationalism also have a ring familiar to us from the theories of modern educators like Hutchins and Adler, who speak of "cultivation of the intellect" and "intellectual virtues."

Above all others, rationalism had its most notable defender in the great German philosopher, Immanuel Kant. Disturbed by the extremes of Hume's skeptical empiricism and yet unwilling to give up the validity of sense experience, Kant set out to reconcile the empiricism of Hume with the rationalism of Leibnitz. His own critical philosophy is thus something of a middle-of-the-road philosophy aimed at reconciling science and religion. Knowledge in Kant's view is made up of two elements, (1) the *content* of knowledge, which in turn is made up of impressions of the external world that come from experience, and (2) the *form* of knowledge, which is made up of the categories of the mind that give organization and order to experience. A crude illustration might be a stamping machine, which can "predict" what form a dollar will take but cannot predict whether the raw material submitted to it will be silver, gold, copper, or what not. In the same way, the mind will necessarily give certain forms to knowledge no matter what the raw material of experience may be. The mind will count things, will classify

things by kinds, and will see causal relationships among occurrences no matter whether it is dealing with apples, dogs, or people.

These categories of the mind were called transcendental categories by Kant. They exist in the mind prior to and above the external world of experience, and they exist in the minds of all rational beings. Kant believed that there is an external world that causes our experience, but he insisted that we cannot *prove* it and therefore cannot *know* it. We know only our impressions and perceptions as ordered by the mind. Also, we cannot know what lies beyond or above experience, but we can believe that such a realm exists. He argued that we cannot prove the existence of God, or the immortality of the soul, or the freedom of the will, but he accepted their existence on faith, because he believed that morally they *should* exist; therefore, he was morally certain that they do exist. Kant thus believed in a supernatural world that cannot be invaded by reason or science but remains the province of religion. He had enormous influence upon the philosophy of Europe and America and helped idealism and rationalism to maintain themselves against the onslaughts of materialism and empiricism.

The conception of learning, however, that ultimately came into sharp conflict with rationalism was the doctrine of naturalism, most powerfully stated by Rousseau in his famous book *Emile*. Stemming from the doctrine of the inherent goodness of human nature, Rousseau's theory states that learning takes place best when the child is free to develop and grow according to his natural impulses. Restrictions and discipline should be discarded and a setting provided in which the child can engage in those activities which interest him. Revealing its affinity with empiricism, naturalism holds that the best learning comes from dealing with natural objects, with the manual arts, and with persons in a natural way. Learning is hampered by too great insistence upon memorizing the heralded tools of rationalism, namely, mathematics, language, and books. Although it is extreme in many respects, the catchwords of naturalism (freedom, growth, interest, and activity) sound familiar to a generation acquainted with the exponents of modern "progressive" education. This aspect of the lineage of the progressive educators of the 1920's is clear.

The Social Role of the Arts and Sciences

Never has a generation been so confident that knowledge could improve society as were the scholars and intellectuals of the late seventeenth and eighteenth centuries. Taking their cue from the physical sciences, they felt that it was most important to study and carry on investigations in all the arts and sciences. Consequently, the eighteenth

century made great advances in nearly all the organized bodies of knowledge.

Science and mathematics. Preeminent in expanding the horizons of knowledge were the scientists and mathematicians, only a few of whom can be mentioned here. Setting the stage in the field of astronomy and physics was Newton, whose formulation of the law of gravitation began a new era in science and whose scientific and experimental method provided a tool for other workers in many scientific fields. Important gains were made in the study of light, heat, magnetism, hydraulics, mechanics, electricity, and chemistry. Fahrenheit's mercury thermometer, Newcomen's atmospheric steam engine, and James Watt's steam engine were high lights in the technological application of these discoveries. Commercial and manufacturing inventions kept pace, as witness Darby's improvements in coal smelting, Clayton's distillation of gas from coal, the commercial manufacture of sulphuric acid, Kay's fly shuttle, Hargreaves's spinning jenny, and improvements in canal, road, and maritime traffic. All these developments, when finally harnessed to steam engines in the late eighteenth century, made possible the new industrial society of the nineteenth and twentieth centuries, one of the most important social developments in all history.

Parallel with these developments went spectacular advances in mathematics, signalized by Newton's work and the development of differential calculus by Leibnitz. In the biological sciences an enormous mass of facts was gathered, and the objects of earth and nature were classified by such able scientists as Linnaeus. However, few laws or theories were developed to bind the facts together into fruitful generalizations; chemistry, geology, biology, physiology, and medicine had to await the next century for a Darwin and a Pasteur. However, new subject matters for schools and higher institutions were being made ready, to challenge the supremacy of the classical and traditional subjects. Finally, one need only mention the names of Locke, Berkeley, Hume, Reid, Leibnitz, Condillac, La Mettrie, Hartley, Helvetius, Holbach, and Kant to indicate the giant strides that philosophy was making in the eighteenth century.

Language arts. In general the classical languages maintained their hold on the schools and universities of all lands, but unmistakable evidence of their decline was seen in many directions. Whereas Newton had written his *Principia* in 1687 in Latin, by the end of the eighteenth century most scientific and philosophical treatises were being written in the vernacular. Even more important was the creation of a new vernacular prose style in newspapers, journals, essays, novels, and dramas. Masters in creating an exact and lucid English prose were Dryden, Swift, Addison, Steele, Samuel Johnson, Defoe, Richardson,

Fielding, Goldsmith, and Sterne. None surpassed Voltaire, Rousseau, Diderot, Montesquieu, and Condorcet in French. In the field of drama Dryden, Wycherley, and Congreve used the English common tongue and Corneille, Molière, and Racine the French. Poetry also "went vernacular" as Dryden and Pope poured their wit and satire into an intellectualized kind of verse that contrasted sharply with the romantic poetry of the early nineteenth century. The all-important point is that the vernacular languages were coming into their own. French became virtually the universal language of fashion, diplomacy, and international discourse, and English and German were becoming refined, clear-cut, and "respectable."

Social sciences. The social sciences began to improve their status in the eighteenth century as scholars and philosophers looked for the natural laws of society. Locke, Montesquieu, Rousseau, Voltaire, Diderot, and Adam Smith gave great attention to politics and political economy. Blackstone in England and Montesquieu in France did yeoman service in working for the improvement of laws. The study of history was affected by scientific attitudes, and documents began to be treated as though they were scientific data to be gathered, classified, checked, criticized, and combed for evidences of careless and too easy acceptance of hearsay or authority. Considerably more attention was paid to social and cultural history than heretofore and less to political, military, and religious history. Voltaire was particularly interested in broadening the scope of history, especially in order to gain historical justification for many of the reforms he wanted in a broad range of fields, religious, legal, and social, as well as political and economic. Underlying much of the historical writing of the period was the same optimism that prompted scientific investigation, belief that history is essentially orderly, simple, and subject to natural law. "Progress" came to be stated as a fundamental law of history; the world was constantly getting better, and the philosophers were confident that the future held more of goodness for the race than did the past.

Art and music. In general, outside of the field of music, the eighteenth century was not as creative and flourishing as was the field of science. Renaissance ideals of architecture, sculpture, and painting were still to the taste of most of the royalty and well to do, who were the principal patrons of art. Louis XIV's Versailles became the model of magnificence and fashion for all the courts of Europe. Stateliness, orderliness, and classical simplicity became the ideal of the intellectual classes and then gave way to the formality and superelegance of the rococo styles of Louis XV. In England Christopher Wren adapted Italian styles to English life, and Chippendale, Heppelwhite, and Sheraton designed appropriate furniture for mansions and manor houses. In general, art

tended to be artificial and conventional, bowing to the whim and dictates of the privileged classes. Painting emphasized portraiture, the pictures of royal, famous, or wealthy persons, as typified in the work of Reynolds and Gainsborough. In music the great creative talent was in Germany, where Bach, Gluck, and Mozart (as well as Handel, a German in England) were restoring music to the place that it once had held as one of the great arts.

Knowledge is power. One of the most characteristic elements of the Enlightenment was the pervading missionary zeal for reform. Whereas Reformation zeal had gone into religious fervor, the enthusiasm of the Enlightenment was directed at reform of all kinds of institutions and was organized into campaigns for the aid of the weak, the poor, the persecuted, and the unfortunate. Fed by the liberalism that came from England in the late seventeenth and early eighteenth centuries, the propaganda for popular enlightenment found its climax in France in the middle and late eighteenth century and became the ideological forerunner of the French Revolution. Appealing not only to the growing intellectual and middle classes, the reformers also worked hard for the alleviation of the conditions of the masses of the people. A great increase in the agencies of public information took the form of new books, pamphlets, newspapers, journals, encyclopedias, debates, scientific academies, libraries, and museums.

Perhaps most outstanding of all such manifestations was the *Encyclopédie*, published in France from 1751 to 1772 under the editorship of Diderot and D'Alembert, with Voltaire, Rousseau, Montesquieu, Condorcet, Holbach, Helvetius, Buffon, Turgot, La Mettrie, and others as contributors. Lashing at superstition, persecution, and intolerance of all kinds, the Encyclopedists worked for the freedom of the press and other civil liberties, reform of harsh and unjust laws, and elimination of poverty, disease, slavery, cruelty, and war. Here again in the fight for civil liberties, for religious and political freedom, and for popular education, the appeal to the natural rights of man as against privilege and tradition laid the basis for our Western heritage of humanitarian democracy. In this struggle public education as we know it had its birth.

ORGANIZATION AND CONTROL OF EDUCATIONAL INSTITUTIONS

The organization and control of education in the Enlightenment reflected the changes that were taking place in political, economic, and religious institutions. As national governments became stronger, the idea of national control of education came to the fore, and preliminary steps were taken, especially in Germany and France, to make it a reality. As democratic and liberal forces gained strength, education was turned

to as a necessary agency of democracy. As the middle classes gained ascendancy, the aims and content of education were reshaped to meet their interests. As new religious ideas and institutions became predominant, education received fresh religious impetus. On the whole, the germinal character of the Enlightenment gave a new humanitarian ideology to education that was brought to fruition in the nineteenth century.

Control by State and Church in Germany

Beginnings of national control. Building upon the efforts of Luther and his followers in the Reformation to create a public-religious system of schools in the various German states, the united Prussia of the Enlightenment period carried national control further than any other European country. In this process much of the stimulus came from the religious enthusiasms of Pietism, led by August Hermann Francke who had caught the humanitarian desire to aid the unfortunate as well as the religious desire to spread the gospel. At Halle, Francke established a series of "institutions" that virtually ran the gamut of a whole educational system. Francke sponsored a free school for poor and orphan children, a vernacular German school at the elementary level, a Latin *Gymnasium* for paying students at the secondary level, a higher school (*Pädagogium*) originally intended for noble students but eventually something of a scientific academy, and, finally, a teacher-training institution that prepared university students to teach in the elementary and Latin schools. Francke gained the support and interest of Frederick William I, king of Prussia, who established several hundred schools in Prussia on the model of Francke's schools and issued the school laws of 1713 and 1717 making it compulsory for all parents to send their children to school. Tuition fees were to be paid for poor children by the communities. In 1737 a general school code provided government aid to build schoolhouses and pay schoolmasters.

National control in Prussia was pushed another degree forward when Johann Hecker, a Pietist clergyman and educator, joined forces with Frederick II, who had a philanthropic concern for the poor and down-trodden but no democratic urge to give them a voice in their own affairs. He called Hecker, who had worked with Francke, to draw up the famous Prussian School Code of 1763, which laid the basis for a national Prussian system of elementary education.

In these regulations religion and literacy were the predominant interests, the state setting standards for the churches to meet. Attendance was made compulsory from five to thirteen years of age, and definite school hours were prescribed. Children were required to pass state examinations prepared by the church, and new state inspectors were entrusted with the regular inspection and supervision of schools. Teachers

had to obtain a license and be approved by the state inspectors as well as by the church consistory before they could be employed. Curriculums, textbooks, and the qualifications of teachers were prescribed in detail. In 1765 Frederick issued a similar school code for the Catholic country of Silesia, which he had conquered from Austria. These were important transition steps toward national control of education, but they met great opposition and were never fully realized in practice despite the important principles that were laid down.

Full state control. The final step in establishing state authority over Prussian schools came some years later in 1787 under Frederick William II, when a school code took the supervision of schools out of the hands of the clergy and put it in the hands of a state ministry of education. Johann Bernhard Basedow, who had become well known for his educational writings and his school, called the *Philanthropinum*, was influential in creating a demand for secular control of schools. He insisted that children of all religious faiths should have fair access to public schools; in this respect, he reflected the new ideas from France. The law of 1787 established a central agency of education in control of all elementary and secondary schools. It also instituted the "leaving examination," which all graduates of a secondary school had to pass for admittance to the university. The principles of public education under state control for authoritarian purposes were thus established in Germany. It remained for France to propose a state-controlled democratic system of education.

The French Conception of National Education

At the opening of the eighteenth century the control and support of schools in France were largely in the hands of the various teaching orders of the Catholic Church. At the elementary level, for example, the Institute of the Brothers of the Christian Schools had made strides in providing charity education for the poor and unfortunate, and several orders of sisters gave elementary instruction to girls. The Jesuits and Fathers of the Oratory dominated the field of secondary education. The Jesuits, however, had become so powerful in political affairs that they became a symbol of the old regime with its abuses and injustices. Their schools were therefore closed in 1764, and the order was suppressed by the Pope from 1773 to 1814. In the middle of the century the Encyclopedists and others began to agitate for a national system of education exclusively under state control. The humanitarian democratic ideology usually argued that education should be universal, free, compulsory, and secular. The idea soon became an integral part of the French Revolution.

As the revolutionists set out to create a new and more democratic society, they realized how important education would be as a means of achieving and maintaining the new society. In the first stages of the French Revolution several statements on education were drawn up. Among the *cahiers* in which the States-General of 1789 expressed their grievances, there were demands for public education that would be less classical and would put more stress upon modern and practical studies. During the National Assembly Mirabeau and Talleyrand drew up plans for secular education that would produce persons with a nationalistic rather than a religious outlook. Under the Constitution of 1791 the Legislative Assembly made proposals for a free, public system of education. The most elaborate plan of all was drawn up by Condorcet at the request of the Legislative Assembly.

Condorcet set forth detailed plans for a complete state system of schools to provide equal opportunity for all children, free, compulsory, and universal. The aim was to develop citizens of the nation under secular control for civic, national, and democratic purposes. He proposed that there should be elementary schools throughout the country within walking distance for all pupils, one for approximately every few hundred. Next, there should be intermediate schools located in all the medium-sized towns to provide more advanced education for the common people. Third, there should be secondary schools or institutes located in the largest towns to provide not only classical education but a wide variety of subjects adapted to the needs of the people. Finally, there should be nine *lycées* to provide higher and professional education to take the place of the traditional universities. Capping all would be a National Society of Arts and Sciences through which scholars could exert influence over the whole educational system. Condorcet's plan was not put into practice, but it provided ideas that were embodied later in other plans and laws.

After the Republic was established, the National Convention made several attempts to establish a state system of schools and to destroy the church schools by confiscating their properties and by suppressing the teaching orders. The Lakanal law of 1794 provided that there should be an elementary school for every 1,000 people, not only to teach the three R's in French, along with geography and nature study, but also to instill republican ideals by teaching patriotic songs and stories and inculcating the doctrines of the Declaration of the Rights of Man, much as American youth are taught the Declaration of Independence and the Constitution. A law of 1795 provided that each of the several thousand communes should establish an elementary school for the three R's and that also a secondary, or intermediate, school should be established for

every 300,000 people to give instruction in classical and modern subjects for children from twelve to eighteen years.

Many of these schools, which were designed to replace the classical *collège*, were established, but they were apparently ahead of their time and not well enough planned or staffed, and thus they lost ground when Napoleon established his own system of secondary education in 1802. The National Convention also tried to establish several higher institutions in the arts, music, medicine, engineering, and science, but their fortunes were very precarious in the hectic days of the later phases of the French Revolution. If the First Republic had been able to maintain itself on a genuinely democratic basis, it is possible that France would have achieved the first democratic system of education in Europe, but the reaction, typified by Napoleon and then the restoration of the Bourbons in the nineteenth century, reestablished the aristocratic type of education that France maintained for generations.

Private Control in England

In England the control and support of education remained during the eighteenth century in religious and private hands, predominantly in the hands of religious, philanthropic societies. Schools were supported by Anglican parishes, dissenting churches, private endowment, and subscription societies set up for the purpose. The most influential of these societies were conducted under Anglican auspices. The Society for the Promotion of Christian Knowledge was founded in 1699 for missionary work in England and soon set up dozens of charity schools as a part of its activity. The Society for the Propagation of the Gospel in Foreign Parts was established in 1701 to work among British colonies; it was energetic in conducting schools in connection with its missions and was particularly active in the middle and southern colonies of America. The Methodists gave considerable attention to the founding of schools as a part of their enthusiastic philanthropy.

Many endowed schools, apart from religious auspices, were founded as a result of the increasing wealth of the middle class. A court had decided in 1670 that a teacher in an elementary school did not require a bishop's license in order to teach, and this stimulated the founding of private schools by endowment. Bishops did, however, have the right to license secondary school teachers. These philanthropic efforts to provide free education were England's way of responding to the educational needs of the eighteenth century. It remained for the Industrial Revolution of the nineteenth century to give the impetus for state control and support in England. Until then, and even afterward, the "voluntary" conception of education remained uppermost in England.

The voluntary conception typified England's individualistic humanitarian approach to society and education in contrast to the collectivistic humanitarianism of the French Revolution. Whereas the French would have set up state systems of schools for all children in order to improve the welfare of all, the English solution was to give free education by philanthropic means to the poor and needy. In addition to the societies already mentioned several other movements were just taking shape at the end of the eighteenth century, but inasmuch as their principal impact was in the nineteenth century they will simply be mentioned here and then described more fully later. One such movement was the Sunday school, devised by Robert Raikes in 1780 to relieve the conditions of the poor children in the new industrial areas and stimulated by the religious revival, which opened up philanthropic pocket books. In 1785 the Sunday schools became a "movement" with the founding of the Society for the Support and Encouragement of Sunday Schools in the Different Counties of England. Before the turn of the nineteenth century it is estimated that half a million children were attending Sunday schools. Likewise, the monitorial schools were being developed by Andrew Bell and Joseph Lancaster late in the eighteenth century, and the infant schools for preschool-age children were appearing under the leadership of Robert Owen.

Along with these voluntary and philanthropic agencies for providing free education, a few voices were raised late in the century in favor of state support of education. Adam Smith argued for state education, but not for the reasons advanced by the French reformers. Smith was interested in the protection of the "better" classes in society from the delinquencies and dangers to property that might arise from an uneducated and illiterate mass of people who might derive "wrong" ideas from the French Revolution. Therefore, he urged public education for the poor as a means of giving the lower classes a useful occupation and a realization of their "proper" place (of inferiority) in society. Much the same notion was expressed by Malthus, the proponent of the survival of the fittest in population trends. Thus, the earliest expressions for public education in England had uppermost in them a desire to protect the economic interests of the propertied classes, a far cry from the French Enlightenment and the American doctrines of democratic education.

Educational Control in Other Countries

In Catholic countries like Italy, Spain, and Portugal the Catholic Church remained in virtual control of education. Interest by the state in education, however, was increasing in Spain under Charles III and in Austria under Maria Theresa and Joseph II. Charles III had been affected by the Enlightenment and was well intentioned with regard to

the establishment of schools under his own auspices. He drove out the Jesuits and hoped to set up secular schools and require state examinations of prospective teachers, but his plans never were realized. Some gains were made in Spanish Florida and California under the tutelage of the Franciscans. Maria Theresa tried to adopt Frederick the Great's plans for state education and reform of schools; and Joseph II planned to set up a centralized system of all educational institutions in the Empire. Though the hopes of these "enlightened despots" may have been in the right direction, the difficulties of issuing edicts from the top down were too great to achieve much success in a short time with peoples not accustomed to the privileges of education.

In Protestant countries the educational systems of the Reformation continued to function in the hands of the state churches. The Scandinavian countries continued their Lutheran schools and the Netherlands and Scotland their Calvinist schools. In Switzerland the effects of the Enlightenment began to appear in the formation of the Helvetic Society in 1762, which began to work for union of the several loosely federated cantons into a stronger national state, with a national system of education as an integral part of the plan. This union was not achieved until the French Revolution was well on its way, but the groundwork was laid and the setting made ready for the work of the Swiss educational reformer, Pestalozzi.

Aristocratic and Democratic Elements in Education

During the Enlightenment more people had the opportunity to go to school than at any previous time in history. The philanthropic and charitable motives fanned by the Enlightenment led churches, rulers, and private individuals to give more money than ever before to educational institutions. The advantages of an increased literacy and popular enlightenment cannot be denied, but they must not be confused with democratic education. Charitable societies and state schools can be established with little or no thought of democracy. Indeed, aside from the French radicals, few writers or educational leaders were concerned with educating the common people to rule themselves. Saving their souls, making them better workers, and making them better subjects were the prime motives of most "enlightened" rulers of the eighteenth century. The importance of this kind of education cannot be overlooked; it should be remembered, however, that most of the advances of the Enlightenment were but a transition to the truly democratic education of the nineteenth and twentieth centuries, when humanitarian liberalism was divorced from its individualistic and aristocratic forebears.

Status of the Teaching Profession

In general, the status of the teacher remained at a low level during the Enlightenment. More often than not the teacher of the elementary school was a person who had some other job or jobs and taught school as a side issue. The church sexton who rang the bell and dug the graves might also teach the school; the woman who needed extra funds would keep a dame school; war veterans who could no longer fight might be assigned to schools (as was the case in Prussia). Sometimes the process was reversed, and teachers who could not make a living at teaching would take up tailoring, carpentry, weaving, or other trades in order to make both ends meet. The teachers in grammar schools and secondary schools were likely to be somewhat better off because of the higher fees paid in the secondary schools. There were even some straws in the wind indicating a better future for the teaching profession. Some of the church teaching orders were maintaining high standards, state regulations in Germany were calling attention to the need of certification for teachers, and such reforms as those of Francke and Hecker were leading the way in giving special preparation for prospective teachers. With universal education around the corner, the necessity of better trained teachers was soon to be recognized.

Nonschool Agencies of Education

One of the great achievements of the Enlightenment was the progress made toward freeing and expanding the agencies of public opinion and literacy. The increase in newspapers, magazines, pamphlets, and written materials in the vernaculars created a wider audience than ever before. Libraries and museums became much more popular and easier of access, if not to the masses of people, at least to the growing middle class, who had the ability and money to take advantage of them. Scientific academies became extremely popular and widened their clientele to such an extent that some of them became international in scope. Indeed, most of the great scientific discoveries and writings were made by men who worked within the scientific societies rather than in the universities. The reluctance of the universities of eighteenth-century Europe to abandon their traditional interests in literary and religious subjects prevented them from becoming the centers of scientific and social research that they became in the nineteenth and twentieth centuries.

EDUCATIONAL AIMS, CURRICULUM, AND METHODS

New Educational Aims

Perhaps the most far-reaching result of Enlightenment theories of education was the development of a new conception of education for citizenship. The political aim of education in the Reformation had been to produce a citizen who would be ready to take his place in a state that was closely allied with a ruling church. Thus, the political aim had a fundamental religious impetus. The Enlightenment, on the other hand, produced a new conception according to which the churches were separate from the state and the values of good citizenship were therefore entirely secular. This conception of secular education for citizenship was the distinctive contribution of the Enlightenment, and it came largely from French sources.

Several of the French reformers who emphasized this new political aim for education were De la Chalotais, Rolland, Turgot, Diderot, and Condorcet. In general, they urged that the basic aim of education is to prepare citizens. They advocated that the schools should be taken out of the hands of the church and placed in the hands of lay teachers responsible to the state. Only as education becomes a secular and civil affair can the schools educate people to serve the state properly in their capacity as citizens. Furthermore, they insisted that education should develop a sense of fraternity and interest in the general welfare of the state. A state system of education should be set up to achieve these aims through secular instruction that is free to all, universal for poor and rich alike, and compulsory.

Despite the fact that the secular point of view received effective expression, it was not widely put into operation during the Enlightenment. The other aims, religious and Humanistic, continued to dominate educational practices, and much of Enlightenment education continued according to the Reformation pattern. The Pietistic schools in Germany, the Catholic schools in France, and the Anglican schools in England maintained the religious aims at the elementary level; and secondary schools in all countries maintained both the religious and Humanistic aims. In Germany a new Humanism gave life to the Humanistic aim of education. Winckelmann, Lessing, Gesner, Herder, and others urged that the classics should be revived in such a way as to develop the whole personality. The ideal, of course, was to be based upon the study of the Greek classics.

Besides the political, religious, and Humanistic aims, the Enlightenment also emphasized education for economic status. Perhaps the most famous suggestions for the education of a gentleman's son were made

by Locke in his *Some Thoughts Concerning Education*. The aims of education as stated by Locke are, in order of importance, virtue, wisdom, breeding, and learning. Virtue is conceived as good character achieved through practice in good moral habits; wisdom is acting with foresight and prudence in the management of one's personal and social affairs; breeding is the achievement of correct behavior, bearing, and manners; and learning is the achievement of intellectual power through mental training, rather than through the acquisition of mere facts or knowledge. These ideals not only reflected the attitude of the English upper classes but played a great part in shaping the conception of liberal education that came to dominate American colleges. The aristocratic conception of education found expression in the knightly academies in France and Germany, Francke's *Pädagogium*, Basedow's *Philanthropinum*, and, in large part, the secondary schools of most countries.

Middle-class aims also came into considerable prominence during the Enlightenment. More and more educators began to stress the importance of practical subjects to prepare youth for the various trades and occupations. De la Chalotais expressed the desire that such schools should be set up in France under state control; Joseph Priestley advocated such studies for the Dissenters' Academies in England; Leibnitz proposed the wide establishment of trade schools; and Francke urged for youth preparing to be secretaries, clerks, and merchants a new type of education in the useful arts, dealing with commercial, mathematical, and scientific subjects. Francke incorporated some of these ideas in his *institutes*, Semler set up a *Realschule* for the "lower" vocations, and Hecker's *Realschule* was designed for boys who were not going on to the university but were entering manufacturing, building trades, agriculture, mining, and commerce. Some expression was even given to the desirability of education for the poorest classes; such were proposed by De la Chalotais in France and von Rochow in Germany.

An interesting point is the degree to which the economic aim was bound up with the religious. Such Pietists as Francke, Semler, and Hecker stressed not only religious studies but realistic and useful subjects; and in England it was the religiously inspired Dissenters' Academies that went the furthest in providing a practical education. The reason for this is undoubtedly the fact that the religious-reform groups were also the middle-class groups, to whom it seemed not at all strange that a person could best serve God by becoming a self-reliant and capable merchant or artisan. In other words, the reform movements in religion appealed to economic groups that desired to gain headway against the ruling economic classes. When, however, the middle-class religious outlook also embraced Humanism, the result was not a *Realschule* but a grammar school or *Gymnasium* or *lycée*.

Breaking away entirely from the institutional arrangements in which the political, religious, and economic aims just mentioned had been expressed, Rousseau glorified the wholesome development of all the natural powers of the individual. If the individual is nurtured properly so that his physical, emotional, moral, and mental capacities are allowed to develop naturally and at the proper time, the cause of education and society will be best served. In other words, it seemed to many educators that Rousseau looked to the individual rather than to society to find the ultimate aims of education. In this respect he was remedying a situation that needed remedying in the eighteenth century, but this one-sided emphasis in his *Emile* helped to divert the attention of many educators from the fact that educational aims also have legitimate roots in society, a fact that Rousseau clearly saw in his *Social Contract* and other writings.

Vernacular Elementary Schools

Despite the formulation of new educational aims and effective statements of them, the elementary schools of Europe remained essentially reading schools, and the main materials for teaching reading were religious materials, especially the catechisms of the various churches. When all else is said and all the major exceptions are noted, the fundamental task of the elementary schools was the task of literacy. Attention to the teaching of writing and arithmetic was growing, stimulated largely by the middle-class interest in such studies for their usefulness in business. Attention to singing and music was also growing as religious revivalism stimulated interest in hymn singing and as a nationalistic spirit began to stress patriotic songs. Wherever the elementary school curriculum contained more than these studies, it was the exception rather than the rule.

In addition to the above-mentioned studies Francke's elementary school in his *institutes* taught some history, geography, and nature study; these were also characteristic of other schools as later ordered by the Prussian School Code of 1763. In France the schools of the Institute of the Brothers of the Christian Schools concentrated largely upon the standard studies but made special efforts to systematize the work so that it would be appropriate to the different grade levels among the pupils. In England the schools of the Society for the Propagation of Christian Knowledge and of the Society for the Propagation of the Gospel in Foreign Parts often reflected the missionary aspect of their task by teaching not only the four R's but also on occasion farming, navigation, and such household arts as spinning and sewing. Workhouses, set up for the poor children of the various parishes, also pro-

vided a kind of vocational education in addition to the system of apprenticeship.

The most common means of teaching reading and religion were the Hornbook, the Psalter, the Bible, and especially the primer, which was a first religious book containing the Creed, Lord's Prayer, Ten Commandments, and psalms. A whole series of books was written on the model of the primer, and these became eventually first schoolbooks as well as first religious books. The Church of England authorized many such primers, and the dissenting churches authorized their own, the most famous one in America being the *New England Primer*. In the middle of the eighteenth century new aids to reading appeared in the form of spelling books, which eventually came to replace the primers. One of the most famous of these was Dilworth's *New Guide to the English Tongue*, which included lists of words, with their proper pronunciation, rules of grammar, prayers, and some fables and moral precepts. Arithmetic books also appeared at this time, giving further recognition and stimulus to this increasingly popular subject of the elementary school curriculum.

Secondary Education

Interestingly enough, secondary education in the eighteenth century was more responsive to the new trends in educational thought than was elementary education, a phenomenon not often discovered in the history of education. Considerable headway was made in introducing the realistic studies and practical studies into secondary schools. Nevertheless, the classical tradition remained by all odds the strongest influence upon secondary education in general. Realistic and scientific studies made headway largely through the establishment of new kinds of schools rather than in the traditional grammar schools. The fact that the new studies were not welcomed in the regular secondary schools shows the grip of Humanism upon these schools. In general, the typical classical schools reached their lowest point in the eighteenth century, having lost the original impetus of the Renaissance and Reformation and not having yet been revived by the new trends of the eighteenth century.

Germany. The secondary schools of Germany were doubly stimulated during the eighteenth century by sense realism and by the new Humanism. The Pietistic influence, as has been stated earlier, promoted sense realism largely through the efforts of Francke, Semler, and Hecker. In Francke's Latin school the curriculum was much broader than in the usual classical school, including not only religion and the ancient languages but also mathematics, physics, botany, anatomy, history, geography, painting, and music. In his *Pädagogium* the realistic studies found an even larger place; considerable provision was made for the

study of mechanics and work with glass, copper, and wood along with laboratory work in natural history and the physical sciences. Semler's mathematical and mechanical *Realschule* followed somewhat the same lines, omitting the classics, and Hecker's *Realschule* in Berlin went even further in offering practical work in mathematics and science. These were the origins of a new type of secondary school called the *Realschule* that eventually took its place alongside the *Gymnasium*, though it was not until the onset of the Industrial Revolution in the nineteenth century that it came into its own. Sense realism also entered German schools through the Philanthropinum of Basedow, in which the useful sciences and mathematics were prominent as well as many of the manual arts connected with carpentry, woodwork, and the practical arts.

The other enlivening factor in German secondary education had its effect directly upon the *Gymnasium*. The new Humanism of this period was injected directly into the *Gymnasium*, the most important curricular change being a new emphasis upon Greek language and literature. As the French influence was cast off in the middle of the century, the new crop of German literary men turned to Greece for their inspiration. The knightly academies fell into disrepute, and the old Latin schools became *Gymnasiums*, the very name harking back to the ancient Greek secondary school. Through their work at the universities and in some secondary schools, Gesner, Heyne, Wolf, and Ernesti gave a character to German *Gymnasiums* that they maintained virtually to the time of the Nazi revolution.

France. In general, the secondary schools of France remained fixed in the traditional classical mold, especially under the influence of the Jesuits, who concentrated upon Latin, Greek, philosophy, and ancient history. The Fathers of the Oratory had achieved a somewhat more modern curriculum in their secondary schools; for in addition to Latin, Greek, and Hebrew they taught the vernacular French and Cartesian mathematics, science, history and geography in the vernacular French. Nevertheless, such French reformers as D'Alembert, Diderot, Rousseau, De la Chalotais, and Rolland began to call more vigorously for greater attention to French history, language, and literature as well as mathematics, science, the practical and fine arts, and physical education.

England. English secondary education was ruled by the Latin grammar schools in the eighteenth century. Within the grammar schools the grammarians held the fort against mounting criticism. They insisted that Latin grammar was the only means of achieving the truly disciplined mind of the liberally educated person. Among their critics even those who agreed as to the importance of the classics tried to soften this approach by urging more attention to the direct use of Latin by concentrating more upon speaking it and upon reading the great literary mas-

terpieces. The Church of England often sided with the grammarians, and legal support was invoked to prevent an expansion of the curriculum. It was pointed out that the foundation grants for the grammar schools had stipulated that Latin and Greek should be taught free to worthy students, and the grammarians insisted that these terms meant that nothing else besides Latin and Greek could be taught.

Gradually, however, the grammar schools became so pedantic, so brutal and violent in their discipline, and so marked by unrest and rioting among the students that their clientele fell off decidedly. It was then that these schools began to be reformed in the late eighteenth century. They kept their classical emphasis but began to yield to Locke's conception of the education proper for a gentleman. The point of view of the pedantic scholar or grammarian had never appealed either to the aristocratic or to the middle class; but when the schools began to emphasize the importance of virtue, wisdom, and breeding, as defined by Locke, and play down learning, the upper classes became more interested. By the end of the century these classes began to patronize the secondary schools more freely, and the great "public" schools began to take their modern form.

The real response to new educational trends, however, took place in the early and middle part of the Enlightenment in the Dissenters' Academies conducted by nonconformist clergymen for their congregations. Starting as Latin schools they soon began to pay more attention to "realistic" studies that would appeal to the middle classes. By the beginning of the eighteenth century the academies were teaching in addition to the classics the English language and literature, modern foreign languages, mathematics (geometry, astronomy, trigonometry), natural science and anatomy, history, geography, politics, and philosophy (ethics, logic, and metaphysics). By the middle of the eighteenth century science and mathematics played a larger role than ever, and commercial subjects became more important. Texts in spelling, grammar, and arithmetic appeared in English. Toward the end of the century the Dissenters' Academies began to decline as the Church of England became stronger, the nonconformist groups lost ground, and the "public" schools began to reform and draw off the clientele. Nevertheless, they had served a most useful purpose in awakening secondary education in England at a time when the traditional schools were especially hidebound and in influencing the rise of American academies in the later eighteenth century.

Higher Education

Liberalism in German universities. A vital intellectual life was allowed to develop in Germany in the eighteenth century by the des-

potic rulers who professed an "enlightened" care for the interests of the people, though this activity was largely confined to science, philosophy, and literature. Under Frederick II, for example, the new science and literature gained favor not only at court but also at the universities, which began to lose their original ecclesiastical character and to take on the character of public institutions intended to train the good citizen and the able civil servant.

In the seventeenth century the German universities had declined under ecclesiastical control; but, in the latter part of that century, the University of Halle was founded (1694), and there Christian Thomasius, the rationalist, and August Hermann Francke, the Pietist, led a revolt against Lutheran orthodoxy. After 1706, Christian Wolff infused the new science and rationalism into Halle and insisted upon the right and duty of free investigation. Philosophy became separated from authoritative theology and began to absorb the modern sciences of mathematics and physics. Wolffian philosophy eventually permeated nearly all Protestant German universities during the eighteenth century. Another step forward occurred when a university was founded at Göttingen in 1734. Here the ideas were even more liberal than at Halle, and almost complete freedom was given to a professor once he had been appointed. Other universities followed the lead of Halle and Göttingen somewhat slowly, but gradually both Protestant and Catholic institutions adopted the new learning.

Some of the essential changes that occurred in the German universities as a result of the eighteenth-century Enlightenment were as follows: The Scholastic philosophy of Aristotle was superseded by a more modern philosophy founded upon the principles of the physical sciences and mathematics. The hard-and-fast curriculum was replaced by one embodying the principle of freedom of research and instruction. Mere exposition of a canonical text was replaced by the systematic lecture. The disputation was replaced by the seminar. A sound and vital classical scholarship replaced the formal imitation of the classics. Finally, the German language ousted the Latin as the medium of instruction. The vast development of science within the German universities made the elective system virtually a necessity and directly affected the rise of the elective system in American colleges in the nineteenth century.

French universities. Although the "enlightened" despotism of Germany aided the introduction of the new science and philosophy and encouraged academic freedom in the German universities, the despotism of France wrought exactly the opposite effect. The universities remained dominated by conservative religious groups backed by the monarchy, which kept a watchful eye on the political and social teachings of the universities as well as their religious teachings. The faculty of theology

of the University of Paris set the pace for the whole institution when it prohibited the study of such books as Montesquieu's *Spirit of the Laws* and Rousseau's *Emile*. Some attempts to heed the cry of the reformers were made, notably by the rector, Charles Rollin, who tried to modernize the system of studies by introducing Cartesian science and philosophy and French history, language, and literature; but his Jansenist leanings brought him afoul of the powerful Jesuit groups, and he was driven into retirement.

English and Scottish universities. With all the intellectual activity and scientific progress in England during this period, it might be expected that the universities would have been radically changed, but tradition and the religious hold of Archbishop Laud and of the Restoration kings kept the English universities behind the times throughout most of the eighteenth century. Despite a few brilliant names, such as Newton, Gray, and Blackstone, the favorite studies at Oxford and Cambridge remained the classics, logic, and Scholastic philosophy. Some gains were made in introducing Newtonian science and mathematics, especially at Cambridge. Chairs in chemistry were established at both Oxford and Cambridge as early as 1685; modern history was established at Oxford in 1724; and a tripos, or honors, examination in mathematics was established at Cambridge in 1747. But these were relatively small ripples in the great sea of classicism.

However, the Scottish universities, which are mentioned here because of their influence upon American colleges, were able to make major reforms by the middle of the eighteenth century. At Edinburgh, in addition to the separate professors of Latin, Greek, logic, and natural philosophy, there had appeared professors of mathematics and of moral philosophy, who gave lectures open to voluntary attendance. By 1741, the course of study in the arts at Edinburgh was far in advance of that in the English universities. The utilitarian spirit of the reform at Aberdeen involved recognition of such activities as dancing, writing, book-keeping, and French. Here, then, are early evidences of the impact of the new science upon the arts curriculum; of the notion of "useful," or "practical," subjects as equivalent to the older studies in their value for a liberal education; and of the actual practice of the "voluntary," or elective, principle.

Teacher education. Some strides were made in the professional preparation of teachers, especially in Germany. At Francke's *institutes* in Halle special attention was given to the problems of prospective teachers, and Hecker established regular seminars for training teachers at his *Realschule* in Berlin. Frederick the Great was so impressed by Hecker's work that he urged teachers to attend his *Realschule*, and other teacher-training institutions began to be established in Austria, Saxony, and

Silesia. The new Humanists in Germany of this period also influenced teacher education, not so much through special pedagogical training as through the efforts of Gesner, Heyne, and Wolf to give a thorough grounding in classical scholarship to teachers who were to go into the *Gymnasiums*. This scholarly conception of teacher education became very popular, and it came to be assumed that all a good teacher needed as equipment was mastery of subject matter. American teacher education adopted this conception and perpetuated it until well into the twentieth century. Other evidences of teacher education were present in the Jesuit, Port-Royalist, and Oratorian orders and in the school societies of England.

It seems noteworthy that the special education of teachers was undertaken principally under two conditions, when an organization or institution, such as the state or church, gave it the impetus, and when such organized groups found it desirable to reform school practice or curriculum along new lines. So long as schools were in purely private hands dominated by traditional universities, no pressure for teacher education arose; but when a teaching order, or an evangelical movement, or a sense-realistic movement became so organized that it wished to change the kind of schools in existence or to set up new schools, then special forms of teacher education appeared. The crusading character of many teacher education movements has long shown that the training of teachers has often been considered a strategic point in the reform of education and of society.

New Conceptions of Educational Method

In general, it may be said that the Enlightenment period was more productive of germinal theories concerning educational methods than it was prone to apply such theories in actual practice. The common methods employed in vernacular schools and secondary schools reflected traditional disciplinary conceptions closely related to an uncritical rationalist outlook. Most vernacular schools were ungraded and had poor equipment, long hours, and inadequate physical conditions. In all schools and even in universities the primary attention was given to the acquisition of verbal symbols through unrelieved memory work, reading, lectures, and recitations. The mental discipline took the form of rigid assignments, drills, and recitations; the physical discipline took the form of severe whippings and cruel punishments of all kinds. Learning to read was a matter of practicing the alphabet, building up syllables, and writing down dictated words and phrases. Advanced language work centered in learning the formal rules of grammar, conjugating verbs, declining nouns, and drilling in style and composition. On the whole,

these methods were based upon the conception that the aim of educational method is to discipline the mind.

Empiricism and sense realism. One of the most noteworthy attempts to break this pattern grew out of the empirical philosophy of Locke, which went beyond the sense realism earlier expressed by Comenius. Locke's empirical conception of the role of experience in learning gave the theoretical justifications for sense realism. Insisting that ideas and knowledge come from the impingement of the external world upon the human mind in the form of sensations and perceptions, Locke opened the way for more attention in educational methods to the development of all the senses of the child, not merely through reading, but through the senses of sight, taste, smell, touch, and hearing. In line with this point of view, Locke quite logically put great stress upon the importance of the physical development of the body, and he gave wide popularity to the famous conception of education as the achievement of "a sound mind in a sound body."

In his *Some Thoughts Concerning Education* Locke gives considerable attention to early care for the child's health through proper diet, sleep, clothing, hygienic habits, sports, and games. He blasts the disciplinary notions of compulsion in teaching methods by insisting that children learn best when they are interested in what they are learning, the best way to gain their interest being through play, which provides pleasurable incentives and prevents the building up of aversions to education. In contrast to the disciplinary conception that the faculties of the mind can be trained by a few linguistic studies, Locke sets forth the theory that the curriculum should be based upon studies that will be useful in adult life. He attacks the narrow classical training and urges the study of English, drawing, arithmetic, writing, shorthand, geography, history, science, and mathematics. Even though he has aristocratic youth in mind, he advocates the values that can be achieved through manual activity in carpentry, gardening, and the like, as well as through ability in active sports of all kinds. Above all, he protests against a moral training that relies upon the learning of moral precepts, verbal injunctions, and memorized religious doctrines. Throughout, he makes it clear that moral discipline is the supreme aim of education but that it can be achieved only through diligent practice in good conduct and the building up of desirable moral habits through appropriate activities.

Much discussion has been expended on the question of whether or not Locke was the author of the doctrine of formal discipline. It seems clear in his writings on educational method, particularly in *Some Thoughts Concerning Education*, that his intention was to break down the traditional disciplinary methods in favor of an empirical approach that stresses the role of learning through experience. However, it is true

that Locke's philosophical outlook, as stated in his works on the human understanding, embraced the necessity of exercising the faculty of reflection much as one exercises his muscles to bring about maximum development. Therefore, the answer to the question depends on which of Locke's writings are taken as authority. If the *Thoughts* are taken as a guide to the education of young children, then mental discipline was foreign to Locke. However, if his essays on human understanding are taken as guides to the development of the more mature mind, then Locke does somewhat justify the theories of formal discipline and transfer of training. Curiously enough, it is the latter works of Locke that had the greatest influence in American colleges in the eighteenth and nineteenth centuries, and thus it is quite natural that they should have been cited in support of mental discipline as the ideal of college education.

The most outstanding example of the application of the empirical outlook to educational practice in the eighteenth century was the development of sense realism in some of the German schools of the day. The very name of Hecker's *Realschule* gives a clue to his interest in sense realism. In his school actual objects were used to illustrate the lessons from books. These took the form of small-scale models of ships, buildings, and machines, life-sized examples of everyday articles of many kinds, and collections of plants, rocks, and small animals.

Basedow went even further in his efforts to see that all teaching made extensive use of objects, models, and pictures. He wrote a very popular and influential textbook called the *Elementarwerk*, profusely illustrated with pictures to explain the textual material. Excursions gave students a firsthand acquaintance with farms, shops, markets, mines, and museums. Physical exercise and games also played a large part in the whole conception of education through experience. Through the efforts of Francke, Hecker, Basedow, and others the first real taste of sense realism was given to education in Germany. But their efforts brought down upon them the opposition of the classical Humanists, and the realistic movement had to await the nineteenth century to gain wider approval and incorporation into the regular school system of Germany.

Rousseau's naturalism. The most radical of all the theories of educational method that came out of the Enlightenment was the conception of naturalism as defined in Rousseau's *Emile*. In many ways it also eventually proved to be the most influential in prying teaching methods loose from traditional practices. Although Rousseau's ideas were never fully put into practice in any single school, they did shape in large degree the thinking of many educational reformers of the nineteenth and twentieth centuries. Rousseau's main point is that educational methods should follow the natural stages of development through which children

grow to maturity. He lists four such stages: infancy, childhood, early adolescence, and late adolescence. Each stage has its physical, intellectual, and social characteristics upon which appropriate educational methods should be based.

During infancy, from birth to five years of age, the child is virtually an animal in its physical need for activity, its reliance upon feelings, and its nonmoral social development. Education at this stage should consist primarily in giving free play to motor activities, allowing free and healthy growth of the body, and providing for the development of the senses through contact with a wide variety of objects. The child should be free to do things for himself and should not be subjected to external compulsions or authority, for he can understand, not precepts, only the necessities that follow from dealing with natural objects and things. During childhood, from age five to twelve, much the same kind of negative education is appropriate, for the child is still fundamentally an animal interested primarily in activity and should not be subjected to social or moral controls from without. Therefore, Rousseau sweeps aside study of books and language as harmful to the child's nature and substitutes play, sports, games, and the manual arts as the means of developing sense experience.

The first great change in child development comes during the stage of early adolescence, from age twelve to fifteen, when reason and self-consciousness appear. Since it is curiosity that leads to the development of reason, the curriculum should be built around curiosity and useful activities, which are the only real motives to learning. Rousseau cites Robinson Crusoe as the great model in this stage of development, for the child is still largely nonsocial in his development; but he can and should begin to investigate the nature of things and see their relationships. Therefore, he should be introduced to studies that reveal nature, astronomy, science, and the arts and crafts, and he should deal with these problems, as Crusoe did, on his own resources independent of the authority or precepts of other people. He should learn by his own efforts through the observation of nature. Here in its extreme form is the theory of learning by doing, not by words.

It is not until later adolescence, age fifteen to twenty, that the youth should deal with social problems. At this stage the greatest change of all occurs as the sex impulse appears, and therefore it is most important for the reason to develop rapidly so that it may serve as a check upon the desires of sex and direct them into socially approved activities. The study of society, politics, economics, history, and religion are appropriate for the youth as an aid to understanding complex social relationships. The development of a moral view, spiritual aspirations, and aesthetic tastes is important, for the youth can now understand these things for

the first time through the study of language, philosophy, psychology, religion, and the arts. The culmination of such a natural education is achieved in marriage.

Much controversy has been aroused by Rousseau's ideas. Some believe that he saw a great vision of the possibilities of human nature released from the shackles of tradition and obscurantism. Others believe that he set education upon a wrong track from which it has not yet returned. In general, it seems to the author that Rousseau did a great service in directing attention to the desirability of studying the child so that education can be adapted to the child's characteristic needs. His conceptions of freedom, growth, interest, and activity were greatly needed at the time as leverages against an overweening authority and absolutism in education. However, Rousseau overstressed the individualized character of human development and understressed the role that education and culture play in the development of the human personality. He neglected the importance of the culture in human development and turned the eyes of teachers away from the necessity of building a society that would aid in the cultivation of desirable individuality. A more adequate educational theory for the present day requires a new synthesis of the role that education should play in developing wholesome individuals in a wholesome society. Education must work on both fronts, on the individual *and* on society.

CHAPTER XIII

THE ENLIGHTENMENT IN AMERICA

THE INSTITUTIONS MEN LIVED BY

During the Enlightenment in America the currents of European influence continued to sweep over the colonies; but before the period was over, something new had appeared in the form of political, economic, and religious institutions. Likewise, the beginnings of a new species of educational institution had emerged in such a way that the nineteenth century was to see something quite different from the educational institutions of Europe.

Political Institutions

Changes in colonial government. Several of the colonies had been founded and controlled by commercial stock companies to which the European governments had granted considerable political and economic power. Among these were Virginia, Massachusetts, New Netherlands, and New Sweden. Others had been founded and controlled by proprietors to whom the king of England had granted land along with political, judicial, and military authority. Among these were Maryland, the Carolinas, New Jersey, Pennsylvania, Georgia, and New York. Then in the late seventeenth and early eighteenth centuries the new mercantilist and commercial interests in England began to force a change in governmental policies, and many of the colonies were made into royal colonies, with governors appointed by the king and vested with the major share of political authority. By the time of the Revolution nine of the colonies had been so constituted. Along with the royal government the colonies were usually allowed to maintain legislatures consisting of upper houses appointed by the governor or king and lower houses elected by property owners. Virtually all colonies had some sort of self-government through which grievances could be expressed and through which eventually the colonists gained more local self-rule.

England began to try to exert greater direct control over colonial affairs from London by the creation of many councils, special commissions, and boards in addition to the regular supervision exerted by the Privy Council, Treasury Board, Customs Board, Admiralty Board, War

Office, and the bishop of London. The colonists gradually became restive under British restrictions and the series of wars conducted against the French, Indians, and Spanish. Some began to suggest a greater measure of self-rule. When the governors of seven colonies met in Albany to negotiate a treaty with the Iroquois in 1754, Benjamin Franklin proposed a colonial union that would set up a federal congress to maintain an army, deal with the Indians, control lands, and levy taxes, but neither the colonists nor England was ready for it.

Finally, the conflicts grew more bitter over such actions as the quartering of British troops in colonial homes, the Tea Act, which gave a monopoly in the tea trade to the East India Company, the closing of the port of Boston, the appointment of the governors' councils by the king rather than by election, the prohibition of town meetings, the trial of colonial officials in England rather than in America, and the establishment of the Catholic Church in Quebec and in the old Northwest Territory. As a result of many more such grievances as these a convention was called in Philadelphia in 1774 to draw up the list of grievances for petition to the king. The battles of Lexington and Concord set off the explosion in 1775, and the Declaration of Independence was issued in 1776, after a year of fighting.

The emergence of the new nation. The first stage of the political organization of the new nation took place under the Continental Congress, consisting of delegates from the 13 sovereign states, which conducted the war until its conclusion in 1781. The Articles of Confederation had been drawn up by those who feared a strong central government and who preferred a more loosely constituted confederation of virtually sovereign states. Their experience with strong nationalistic governments in Europe had made them fearful of an overweening centralized government. Therefore, the central government was first designed merely to deal with such necessary tasks as war, commerce, coinage, and the disposition of the public lands that had been created when the states gave up their claims to the western lands.

The weakness of the Confederation soon precipitated a struggle over the creation of a Constitution to take the place of the Articles. This struggle was fought between the Federalists, who urged a stronger central government, and the Republicans, who desired a less powerful government but a more democratic one. At the Constitutional Convention, many of the Republican leaders who had so well conducted the Revolution were absent. Thomas Jefferson, Samuel Adams, Thomas Paine, and Patrick Henry, for example, were not there. The new government was given greater power to levy taxes directly on the people, regulate commerce, control the currency, and prevent the impairment of contracts. Ratification by the states was finally won after considerable opposition.

In general, the propertied classes favored adoption, but the debtor groups and back-country people were skeptical of the degree to which their rights would be protected under a constitution that did not contain a bill of rights consonant with the Declaration of Independence. Finally, the requisite number of states ratified the Constitution, and at the first session of Congress the first 10 amendments were introduced as a bill of rights and were finally ratified by 1791.

In general, the struggle for power was won at the Constitutional Convention by the merchant and propertied interests, but the Bill of Rights and the new constitutions of the states reflected the demands for more democratic control and wider suffrage. The more radical agrarian and populist groups captured many of the new state governments, but the propertied groups urged a stronger government that would protect property, provide checks on the supremacy of the legislative branch, and give more power to the executive and judiciary.

When the new government was launched by the Federalists with Washington as president in 1789, much effort was devoted to establishing a solvent financial structure as favored by the propertied classes. The federal debt was paid at par, the United States assumed the state debts in order to pay back the large creditors and lenders, a national bank was established, and high protective tariffs and excise taxes were levied. To these measures the debtor classes, of course, objected, and they found a leader in Jefferson, who sponsored Republican ideals in opposition to those held by the Federalists. Washington, however, was re-elected in 1792, and John Adams followed in his footsteps in 1796. By the end of the century, the Americans had won the right of home rule, but also central in the political affairs of the day was, as Professor Carl Becker put it, the struggle to see who would rule at home. In this struggle the Federalists and propertied interests were winning up to 1800, but the Republicans came to power in that year, when Jefferson was elected as third president. The Federalist party as such soon disintegrated after that defeat.

Economic and Social Institutions

Rise of merchant capitalism. Throughout the eighteenth century agriculture continued to be basic to the economic institutions of the American colonies, but one of the most important developments of the period was the rise of commercial interests. After the close of Queen Anne's War in 1713 a great upswing in trade and commerce was achieved as the European wars created a huge demand for American agricultural, forest, and fur products. This meant an increase in power for the merchant classes, who began to carry American trade to and from Europe.

In 1700 the vast majority of Americans owned their own small farms.

In the North the farmers depended upon grain and livestock, but many began to turn to lumber, furs, shipbuilding, and fishing. In the South tobacco, rice, and indigo were so profitable that the large-plantation system became more than ever the common means of supporting an owner (planter) with a number of workers, white and Negro, to do the work. After 1713 the great increase in trade and commerce in the New England and middle colonies led to the rapid expansion of cities along the eastern coast near the good harbors like those at Boston, New York, Philadelphia, Baltimore, and Charleston. Commerce became a quicker way to get rich than through land, although land speculation became popular too. The Yankee trader began his journeys to the West Indies, Africa, Europe, and England. With the increase of wealth from this trade the Yankee merchants began to challenge the political and social authority of the landed gentry and the clergy. City life and the new spirit of profit making began to give a character to American life that became increasingly prominent decade after decade.

Social classes. The population of the colonies was fairly homogeneous up to 1690, but by 1750 great numbers of non-English people had come to America. The total population by the Revolution reached about 2,500,000 or 3,000,000. The newcomers were principally German, Scotch-Irish, and French, who tended to push beyond the settled regions of the eastern seaboard to the back country bordering on the Appalachian range. By the Revolution they had pushed into the western areas of New England, the Mohawk valley of New York, central and western Pennsylvania, the Shenandoah valley of Virginia, and the Piedmont of the South. They were ready to push over the mountains at the time of the Revolution and did so before the end of the eighteenth century. By the middle of the century all people on the frontier, whether north or south, had more in common than they had with the eastern cities. They were agrarian in outlook and sympathies, and they were likely to be debtors and to resist the laws of the creditor eastern sections. They thus provided fertile soil for the growth of an indigenous democratic and individualistic outlook.

In the New England and middle colonies, the clergy and landed gentry had to make way for the merchants. In the cities a working class of clerks in the business houses and mechanics in the manufacturing shops began to gain in numbers and importance. Before the Revolution the workers formed benevolent associations to help members in distress or illness and to keep the members up to certain moral standards. In the 1790's, when merchants began to import English manufactured goods to compete with American products, the American small employers had to lower wages to meet the competition. In reaction, the first American trade union was formed in Philadelphia in 1794, the

Federal Society of Journeymen Cordwainers. It conducted its first strike in 1799 to resist reductions in wages and won after 9 weeks. Six years later, another strike was defeated on the legal ground that the workers had organized a "criminal conspiracy" by combining to increase their wages contrary to the English common law. Thus, while the American labor movement had its origin before 1800, it was not destined to become very important economically or politically until merchant capitalism took on new industrial forms in the nineteenth century.

In New England and the middle colonies a strong class of small farmers who owned their land or rented it became ever more important in the social structure. The colonial land policy of granting land free to those who would take it produced a powerful class of freeholders, or yeomen, in the back country, who developed a strong democratic and individualistic temper. Together with similar groups in the back country of the South, they began to accept the French conceptions of liberalism based upon "natural rights" rather than upon the rights of king, church, or merchant. In the South the labor group was made up of indentured white servants and Negro slaves. Very often the indentured servant could gain his freedom after 5 years of service and would then take up land in the West or become a wage earner. The possibility of freedom for white workers increased, but the social status of those who remained in the South declined as the wealth of the planters grew and as wave after wave of Negro slaves were brought in. In 1670 the Negroes represented only about 5 per cent of the population in Virginia but by 1756 they represented nearly 75 per cent. By 1760 there were about 400,000 Negroes in America, and they accounted for more than one-third of the population in the South. With the invention of the cotton gin, the South turned more than ever to cotton and established Negro slavery securely until the time of the Civil War.

Clash of economic interests with England. Very important in the revolt against England were the series of curtailments of American economic interests. Early in the struggle the battle was for home rule as against absentee control by the English centralized system of imperialism. The English did not quite understand the individualism and liberalism of Americans, because their officials in America were mainly Tories. If the more liberal Whig imperialists had been able to keep control under Pitt, they might have prevented the Revolution. As it was, the rigid mercantilist conception of the English merchants continued to outrage the colonists. Mercantilism meant strict control of colonial commerce and strict political supervision to the end that the colonies furnish the things that England needed for England's benefit. Thus, England wanted to bar the importation of products from America

that would compete with English-made products and at the same time require America to import English goods.

This policy alienated almost all groups in America except the English officials and their followers. It alienated the merchants of the north and middle coastal areas, whose trade began to be hurt by the regulatory acts of England. It alienated the southern planters, who had inherited the English traditions of the landed gentry and hated the English merchants, to whom they were often indebted. It alienated the agrarian freeholders of the back country from Maine to Georgia, who hated the English aristocracy and the royal officials as the worst representatives of absolutist authority. As a result of these common antagonisms, the various classes of the colonies could suppress their differences and unite to throw off English control and fight the Revolution to a finish.

Clash of economic interests at home. Once the Revolution had been won, however, the struggle over who was to rule at home became intense. The gap between rich and poor had been widening during the eighteenth century as the result of increased concentration of wealth in the hands of the merchant and planter classes. The debtor classes resented a new policy in the North by which legislatures had granted land to speculators who held it for profit, who did not live on it or work it, but who nevertheless could control a town by virtue of being a large landowner. In many respects such policies of legislatures, speculators, and absentee landlords were more outrageous to the farmers than were the trade acts of England. Therefore, they became loud in their protests against absentee ownership, high taxes, and heavy interest rates on loans and mortgages and demanded cheap money as a way to lessen their burdens. Similarly, in the South the small landowners resisted the power of the planter, who was trying to build up a social life on the model of the English gentry and aristocratic classes.

In general, the working and clerical groups in the larger towns and cities began to feel somewhat akin to the small farmers in that they too had their grievances, namely, low wages, and they joined the farmers in supporting Jeffersonian conceptions of democracy as represented in his Republican party. These groups began to take over more and more of the French humanitarian conceptions of political, economic, and educational progress. They were the backbone of resistance during the American Revolution, and they became the spearhead of the campaign to spread political and social democracy during the nineteenth century. One of the best interpreters of this period, the French physiocrat, Crèvecoeur, was impressed by the way the European peasant became a different person in the free air of America, where privilege was swept away and freedom was achieved. He found the real democracy of

America, where Jefferson did, on the backlands farms, not on the sea-coast or on the advanced frontier.

Religious Institutions: The Great Awakening

Decline of the Puritan theocracy. With new currents of thought sweeping into America from England and France the Puritan clergy found it ever more difficult to maintain its control in New England. The high hand of John Cotton and John Winthrop began to be replaced by the querulous complaints of Cotton Mather and the sharp jibes of John Wise. Theocracy could no longer hold out against rising commercial interests and the influx of new national and religious groups. The New England churches began to realize that perhaps Thomas Hooker and Roger Williams had been right in stressing religious toleration more than they had done. This realization did not come, however, without a last effort at repression, which took the form of the witch hunts and Salem trials. Yet the conversion was signalized by the end of the eighteenth century when the liberal doctrines of Unitarianism grew strong in New England.

Bitter arguments arose concerning the kind of organization the church should have and what its relation to the state should be. Cotton Mather thundered against lay control of the church and demanded more complete control by the clergy. He wanted to preserve the old theocratic church-state, which he saw slipping away, and he told the people that they should be willing to be ruled by the godly. He resented any interference by the merchant classes, and he ranted against the popular unrest of the common people. He had no shred of liberalism in his outlook; yet he was more widely read than most others of his time. In Parrington's words, he was a twilight figure.

John Wise was the outstanding spokesman for a more liberal conception of a democratic church in a democratic state. He wrote effectively in favor of the separation of the church and state and in favor of democratic control within the church. To him the best form of church organization was in congregationalism, according to which the people themselves are the ultimate authority. By analogy with political organization, the church could be monarchical in rule (a papacy or episcopacy), aristocratic (presbyterian), or democratic (congregational). He represented French humanitarian beliefs in natural rights, equality, and general welfare through good government, and he reflected the free and independent spirit of the New England back country in contrast to the aristocratic spirit of Boston Toryism and merchant groups.

Religious freedom. Despite Wise's efforts in behalf of a separation of church and state, the Congregational Church remained the established church in Massachusetts, Connecticut, and New Hampshire to

the end of the eighteenth century. The Church of England was established by the state in Georgia, South Carolina, North Carolina, Virginia, Maryland, and in the four southern counties of New York. Only Rhode Island, Pennsylvania, Delaware, and New Jersey had no established churches. During the eighteenth century the influx of a wide variety of religious groups into most colonies made the possibility of success for a single established church ever more unlikely. Great numbers of German Lutherans, Moravians, Mennonites, and Scotch-Irish Presbyterians settled in Pennsylvania, and the Methodists and Baptists gained followers in all colonies. After the Revolution, many of the churches broke their ties with Europe, and American versions of the Church of England, Methodist, Presbyterian, and other churches were organized. The several state constitutions and the First Amendment of the United States Constitution dealt a death blow to the idea of an established church in America. All state churches were disestablished by 1786 except the Congregational Church in Massachusetts, Connecticut, and New Hampshire, where it was not disestablished until the nineteenth century.

The Great Awakening. The middle decades of the eighteenth century witnessed such a widespread evangelical arousing of religious emotion that the period is often called the "Great Awakening." An American version of the Pietistic and Methodist movements in Europe, it affected most of the large denominations in America. Outstanding among the many religious leaders who stimulated the revivals were Jonathan Edwards in New England and George Whitefield, who traveled the length and breadth of the land preaching literally thousands of sermons over a 30-year period.

As a result of the efforts of the various revivalists, thousands of new members were swept into the churches, and many new congregations were added to each denomination. Religious leadership gained greatly in power and importance as a result of the nation-wide movement, but the fact that many churches grew more powerful made it more certain than ever that established churches were doomed. The revival doubtless increased genuine religious feeling, but it also resulted in virtually hysterical emotionalism among many people. It increased philanthropy and altruism either through a broadened sympathy for the unfortunate or through fear of the everlasting torments of punishment in the next world. It prompted the merchant classes to devote some of their money to the churches, to philanthropic societies, and to schools and colleges.

In his sermons Jonathan Edwards reached the peak of revival technique with his threats of eternal damnation and the horrors of burning brimstone for sinners. Much of the evangelism, of course, was more restrained. In either case the purpose was the same, to persuade people to join the churches. As a result, many American schools and colleges

of the Enlightenment were stressing religious beliefs more than the new political ideals of the impending revolution. The hold of the churches upon American education was made much more firm and they were able to maintain that hold much longer than would have been the case without the Great Awakening. New colleges and new secondary schools were hammered out in the crucible of religious revivalism.

THE IDEAS MEN LIVED BY

The period between 1690 and 1715 was perhaps the low point in American intellectual life; the Puritan theocratic ideals were being attacked, and the new impetus from Europe had not yet been absorbed into American thought. But as America was caught up in the European imperialist wars and as new blood from many national stocks began to flow into America, intellectual life began to take on a new color and vitality. English ideas of middle-class liberalism were accepted by many American merchants and traders, and French ideas of democratic humanitarianism were accepted by the ordinary man in city and country. As John Adams put it, the revolution was effected before the Revolutionary War began. The revolution was first of all in the minds and hearts of the people.

Political and Economic Ideas of Good Citizenship

The most remarkable shift in political and economic ideas was the change from an absolutist conception of the state as defined by Puritan theocracy to a democratic conception. At the beginning of the century sovereignty had been in the hands of a few chosen church members and the clergy; when the century was over, it rested on a much wider popular base. In the process the theocratic conception was overthrown, the English aristocratic and royal conception was overthrown, and the battle was on as to whether sovereignty should rest with the relatively few propertied persons or with the whole adult male population. In the course of the century, three positions became quite well defined in America: English aristocratic Toryism, English middle-class Whiggery and Federalism, and French democratic Republicanism.

Toryism. In England the Tory party had been the supporters of the Stuart kings in the seventeenth century against the rights of Parliament. The name lived on and was applied to the English royal officials and their loyal friends in America, who envisioned an America ruled by the wealthy upper classes. Perhaps the outstanding exponent of the Tory view was Thomas Hutchinson, the last royal governor in Massachusetts. He felt it only right and just that gentlemen of property should rule the state and that the welfare of the colonies should be determined

by English control from abroad. He hated the "mob," and he hated the town-meeting idea of popular control; the ignorant and stupid people should be ruled by the intelligent few. In general, the Tory insisted that the primary duty of the ordinary person was to obey the king and be loyal to the constituted authorities, for the worst evil was disorder and rebellion. This was the ideology against which most Americans united to wage the Revolution.

Whiggery and Federalism. In their opposition to the Tories the American middle classes were attracted to the English Whig position. The Whigs had been the proponents of parliamentary control over the king in the seventeenth century, and they continued to be the spokesmen for middle-class and laissez-faire liberalism in the eighteenth century. William Pitt was the great leader of the Whigs in England who saw justification in the claims of the colonists for freedom from the colonial restrictions imposed by Lord North and the Tories.

The American Whigs fought royal and Tory control on the basis of their rights as Englishmen. They wanted to be treated without discrimination as other merchants and traders were treated in England, but, when that argument failed, they appealed to their "natural rights" as defined by Locke, the rights to life, liberty, and property. One of the outstanding American Whigs was John Dickinson, who insisted that the primary aim of government is to protect property. When he felt that the English government was usurping American property rights by levying taxes from England without American representation, he was ready to take part in the Revolution. He was not a democrat or a Republican, for he believed that a legislature should represent the property owners. At the Constitutional Convention he favored property qualifications for voting and a strong stable government in which the Senate should act as a check on the House of Representatives.

Thus, when the debate was being waged over the kind of government that should be set up in the new nation after the war was won, the Federalists carried on the tradition of the English Whig position. The preeminent spokesman for the Federalists was Alexander Hamilton, who assumed that the difficulties of the "critical period" following the war grew out of the lack of a strong centralized government that would protect property. In general, the Federalists were opposed to the wide extension of democracy, and they felt that a written constitution was necessary as a safeguard against the uninformed will of the common people. They were the spokesmen for the wealthy merchants and professional men, who leaned toward the principles of merchant capitalism. Hamilton recognized the necessity of a government that would fit the capitalistic conception of a sound financial system and economic structure. He had no faith in the "turbulence" of the common man and

urged that the rich and wellborn should have a permanent share in government to check the unsteadiness of the masses.

Democracy and Republicanism. Although joining with the Whigs and Federalists to win the war, the more democratic elements subscribed to different conceptions of man and society. They found leaders in Franklin, Samuel Adams, Paine, and, above all, Jefferson. These men and others found their ideological base not in English capitalism but in French humanitarianism. They appealed not so much to constitutional rights as to the natural rights of all men, to the inherent equality of all men, and to the possibility of social improvement through a government that rested upon the sovereignty of the whole people, not the propertied classes only. Theirs was the faith in the common man.

Franklin was the spokesman for the back-country yeomanry as opposed to the town gentry; he advocated universal manhood suffrage as well as federal union; and at the Constitutional Convention as well as in London and Paris he was a democrat in aristocratic surroundings. Adams was the ardent believer in the local rule of town-meeting democracy. He took it upon himself to organize the rank and file of people to play their part in control of the political state, and he expounded the right and competence of the people at large to manage their own affairs, in contrast to the attitude of Hamilton. He fought the Tories and Federalists alike, worked hard for the Bill of Rights, and supported Jefferson for President as a return to democracy after three Federalist administrations. Paine was an outstanding representative of French ideals of equality and democracy in America and Europe. As Parrington so well says, he was "a delegate at large in the cause of human freedom." In his *Common Sense* Paine blasted the aristocracy and privileged interests, expressed implicit belief that the majority will is the supreme law, and urged that the people can and should remake the law at any necessary time. He extolled natural rights above property rights in his famous *Rights of Man*.

Representing the French humanitarian ideals above all others and shaping them to fit America as he knew it, Jefferson gave an enormous impetus to the cause of democracy through his writings and his Republican party. He combined a faith in the common man and in human nature with his faith in the agrarian freeholder. He felt that political freedom arises from economic freedom, political democracy from economic democracy. He mistrusted capitalism, mercantilism, and city life and glorified an agrarian society of freeholders as the root of liberty, equality, and fraternity. He took to himself the equalitarian doctrines of Rousseau and the French physiocrats and applied them to the American frontier scene. He saw in America the opportunity to work out in practice the ideals of the French Revolution. He favored a government

resting upon popular sovereignty, but he hated and feared a strong centralized government operated by the few, whether English aristocrats or American merchants and landowners. His bills introduced into the Virginia legislature reflected his deep concern for freedom of religious conscience and freedom from vested interests of all kinds. His formulation of the basic ideals of democracy in the Declaration of Independence gave America its best statement of the "American dream."

The motives for men's actions in Enlightenment America were, as always, not of one piece. Not only were men swept away by the religious fervor of the Great Awakening and by the political and social idealism of the Revolution—they were also beginning to glorify another and, eventually, a most powerful motive, the making of money. Until the eighteenth century most men had been almost wholly occupied in the struggle to survive and make a living, but now the ideal of money-making and profit, as well as of equality and freedom, came to be incorporated in the American dream. That these motives are not always consistent was not clearly seen until the nineteenth century. Thus it was that Benjamin Franklin could be an outstanding spokesman for all these ideals. When he glorified the virtues of industriousness and frugality, Franklin reflected the economic ideals of merchant capitalism. He could not foresee that economic conditions might so change that profit motives would no longer contribute to equality and freedom.

World View and Human Nature

By and large, the dominant conceptions of the world and of man's place in it continued to be shaped largely by the religious tradition of Christian theism, but gradually the Enlightenment doctrines of Deism and rationalism from Europe began to make themselves felt in American thought. The doctrine of innate depravity was promulgated by Cotton Mather early in the century, and Jonathan Edwards was the most outstanding spokesman for the conservative theological position in the middle of the century. He reaffirmed the doctrines of total depravity of human nature and the special election of those predetermined to be saved. He pictured a universe completely controlled by an angry God who manipulates the world for purposes of granting salvation to the elect and meting out eternal punishment to the sinners. He rejected the idea that human beings have free will and insisted that God exerts complete control over man's will and destiny. He rejected the Arminian notions that man can be saved by a good life of good works and argued that man can be saved only by conversion. He took up the cudgels against the conception of man as a part of nature and viewed "natural man" as sinful and evil. Although his main concern was with the means

of salvation, rather than with the make-up of man's nature, he held to a strict dualism of soul and body in man.

The more liberal doctrines of Arminianism, Deism, and rationalism pictured the universe as a safer and better place for man than Edwards would allow. By the end of the century these doctrines began to take the shape of Unitarianism, which modified the doctrines of special election and original sin and began to preach the inherent goodness of human nature and the indefinite perfectibility of man along the lines of French humanitarianism. The Unitarians rejected the theological idea of Trinitarianism and spoke of Christ not as divine but as a great human teacher. They spoke of God's beneficence and sympathy rather than of wrath and fear and punishment. They emphasized the humanitarian, rational, and ethical qualities of religion rather than the divine, the dogmatic, and the theological. As these liberal views began to win recognition, more room was made for individual responsibility in religion and less room for the witch hunts, the persecutions, and the intolerances of the early period. In this respect the Enlightenment was living up to its name.

America was also beginning to accept the new scientific conceptions of the Enlightenment and even to make some contributions to it. The Copernican view of the universe was being taught in some of the colleges, and before the century was over Newton's works and those of other scientists were being studied. However, the picture of a universe operating according to natural laws and of man as an integral part of nature was only a faint part of the intellectual concerns of the Enlightenment in America. More often than not, the study of science was filtered through the dominant religious ideologies of the time, nature still being considered to be the handiwork of God. Franklin, John Winthrop, and Jefferson were outstanding exceptions to this rule, but the fact remains that no rounded scientific conception of the universe, human nature, learning, or intelligence came from America in this period.

Social Role of the Arts and Sciences

Communication. One of the basic reasons why it was possible for the separate colonies to become one nation was the improvement of communication. By this is meant not only that roads were improved and that intercolonial trade by stagecoach and ship was made more rapid but also the even more fundamental fact that people began to think and act as Americans rather than as Englishmen, Germans, French, or Dutch. That such common understanding could be achieved was due largely to better facilities for exchanging opinions and ideas through the written and spoken word. By 1800 regular mail service had been established from Maine to Georgia; the number of newspapers had increased from

the first little *Public Occurrences* in Boston of 1690 to some 40 newspapers; almanacs, pamphlets, and books received wider circulation; and many clubs and societies had been formed. Such men as Adams developed the techniques of forming public opinion not only through the town meeting but also through public discussion and popular referendum as perfected at Faneuil Hall in Boston and in the Committees of Correspondence. Adams was the first really to develop the power of publicity as a means of molding public opinion. He railed against secret proceedings of governments and law courts and insisted that such decisions be brought to the light of day for public discussion. Inherent in this conception was the ideal of the civil liberties, freedom of speech, assembly, and the press. The Revolution probably could not have been won without such methods of communication and common understanding, and the future of democratic government could not have been vouchsafed without them.

Language and literature. Essential also to the development of communication was the wide acceptance of the English language in the eighteenth century. This fact helped to weld together the disparate groups so that the country could become a nation. Most agencies of communication came to use English (with adaptations from the Dutch, German, and French as well as Indian), and except for the colleges and Latin grammar schools most educational institutions began to emphasize English. Consequently, the writing of Latin declined except for academic purposes, and interest mounted in the modern foreign languages. The growth of American trade led to interest in Spanish, Italian, and Portuguese as the languages of commerce, and sympathy for the French Revolution gave a great popularity to the French language in the late eighteenth century.

Literature, of course, continued to reflect the diverse religious interests of Cotton Mather, Jonathan Edwards, John Wise, and the Unitarians. Religious polemics continued to play a great part in the literary output of the period, along with political and economic controversies. The prose of Franklin, Adams, Paine, Jefferson, Hamilton, and Madison began to set new standards of eloquence and persuasion. Many lesser literary lights began to follow English models in prose and poetry. When violent polemics were being waged between the Federalists and the Republicans, the "Hartford wits" put belles-lettres to the service of Federalism (Timothy Dwight, John Trumbull, and Theodore Dwight), while Philip Freneau, Joel Barlow, and others made common cause with Jeffersonian Republicanism.

Social sciences. The secular study of society made considerable advances in the colonies in various ways. In history, Thomas Prince and Thomas Hutchinson in New England and William Stith in Virginia

began to put more reliance upon existing records for evidence, rather than upon the workings of a divine providence. In social economy, the Quaker John Woolman and many others besides Franklin began to discuss pertinent problems of trade, manufacturing, agriculture, money, expansion, and intercolonial union. The legal profession gradually began to secularize lawmaking and judicial decisions by opposing the claims of the clergy to a voice in the decisions of civil justice. The newspaper press, periodical journals, and pamphleteering were quickening by the middle of the eighteenth century, and through these outlets were discussed the affairs of state and society as well as those of religion. Through bookstores and circulating libraries a knowledge of the intellectual, political, and social advances that were being made in Europe and America began to be more widely disseminated.

Science. In the field of the physical and biological sciences progress was also made. Franklin's versatile investigations and experiments ranged over an enormous area of interests, including electricity, magnetism, earthquakes, meteorology, agriculture, and mechanics. The interest in collecting botanical and zoological specimens spread through the South as well as the North. Franklin's interest in all things scientific prompted him to organize the *Junto*, a group of men interested in scientific and political affairs in Philadelphia, and, later, the American Philosophical Society became an important agency for the discussion of intellectual and scientific matters. Several Americans corresponded with the Royal Society in London and the Academy of Science in Paris.¹ Many English and French scientists came to America to continue their work and spread the gospel of science; among these were Joseph Priestley and Quesnay de Beaupaire.

Medicine and law. In the early part of the eighteenth century most physicians in America had come from England or France, but as the century progressed the medical profession began to avail itself of some of the mounting interest in science and to achieve a higher position in public estimation. Much of the medical world remained, however, at the level of quackery and nostrums. Special instruction in medicine was established at the College of Philadelphia in 1765, at King's College in 1767, and at Harvard in 1782. As early as the 1720's, smallpox inoculations were introduced in Massachusetts, but a great battle was thus aroused between science and religion, and medical science had to win its way gradually against great odds.

Early in the eighteenth century there was a strong prejudice against lawyers, who were looked upon as tricksters and sycophants. However, as the legal arguments based upon natural law and natural rights began

¹ For a discussion of developments in science in the colleges, see pp. 378-383.

to gain a hearing, the lawyer began to find a larger place in American life. By 1730 there were some 30 lawyers in New York City, some of whom joined together to form a small bar association. The real emergence of the legal profession occurred as business and commerce created a greater demand for lawyers. By the middle of the century, legal advice became much more necessary for the businessmen, merchants, and landowners as more complicated forms of corporation and partnership were developed, as land titles came up for dispute, and as business agreements needed adjudication. The Albany convention in 1754 signaled the fact that lawyers would thereafter take a leading role in shaping public opinion. The clergy began to lose its preeminent place to men like Patrick Henry, Thomas Jefferson, John Adams, William Livingston, and many others.

The arts. The quality of the practical arts showed a decidedly upward trend during the eighteenth century in America. The work of silversmiths and cabinetmakers improved; much good work was done in carving and decorating furniture and in metalwork. A new type of American sampler began to appear in the middle of the century, showing originality and free departures from English models. Household appliances improved in quality, design, and usefulness; much ingenuity was shown by Franklin, for example, in developing his stove and other heating and lighting equipment. Painting and architecture were largely imported from England until later in the century, when portraiture was improved by John Singleton Copley, Benjamin West, and Gilbert Stuart, and architecture was influenced by Wren and Jefferson. Although there was little organized musical life outside of the churches early in the century, considerable singing and playing of instruments took place in homes, taverns, and churches and at fairs. Concerts began to be given after the middle of the century in Charleston, New York, Boston, and Philadelphia, and even the theater gained headway in New York and Philadelphia against religious and Puritanical objections.

ORGANIZATION AND CONTROL OF EDUCATIONAL INSTITUTIONS

The over-all picture of educational control in eighteenth-century America is complicated and confused, but certain general patterns can be detected. For the most part, religious control of schools continued to be predominant. During the middle decades of the century the Great Awakening further stimulated the movement for control of schools and colleges by the different church groups. Meanwhile, the new commercial interests produced new types of private schools taught in English and emphasizing appropriate practical subjects. Later in the century the

political motive came to the fore, and proposals were made that the new states should sponsor public education; some writers even proposed that the new federal government should support and control education for democratic purposes.

Religious and Private Control of Schools

As would be natural, the inherited traditions of Reformation times remained strong in the American colonies of the early eighteenth century, and consequently it was generally considered proper that education was a function of the churches. With the exception of Rhode Island the established Puritan Church provided the stimulus for education in the New England colonies through colonial and town laws. In New York and the southern colonies the Church of England made some efforts at expanding education through legal means. Outside of New England the most important means of providing education came to be the Society for the Propagation of the Gospel in Foreign Parts, which established many free schools under Anglican auspices in virtually all the 13 colonies. These beginnings of philanthropic, charity education for poor and underprivileged children were greatly accelerated by the religious enthusiasms of the Great Awakening.

As thousands of people flooded into the several denominational churches, the strength and material wealth of the churches were greatly increased. With the emotions of altruism and philanthropy and religious zeal for spreading the gospel thus awakened, the people were more than ever ready to pour money into establishing religious schools and colleges. Extensive campaigns to establish schools were carried on by the various Protestant denominations, Presbyterian, Dutch Reformed, Puritan, Congregational, Lutheran, Moravian, Mennonite, Quaker, Baptist, and Methodist. The philanthropic motive combined with religious fervor produced the denominational idea of school control.

As an outgrowth of the Enlightenment ideal of religious liberty, America accepted the idea that churches could put this liberty into effect by providing their own schools. In this sense denominational control of education was a great victory for religious tolerance. It is also true, however, that in time to come the religious control of schools was to stand in the way of the idea that education should be under public control for all children, regardless of creed. America is still struggling with the problem of reconciling secular education under civil control with the demands of the churches for religious education under church control.

Parallel with the increased trend toward denominational control of education in the middle of the eighteenth century, a new type of school appeared that was left in the hands of private schoolmasters, divorced from religious instruction, and intended to provide a secular education

in subjects that would be useful and practical for the expanding occupations of a commercial society. These private schools were established principally in the coast towns of the eastern seaboard, where commerce and trade were becoming so important, in Boston, New Haven, New York, Philadelphia, Baltimore, and elsewhere. The private schoolmasters were responsible, not to the churches or to the towns, but only to their clientele, who wished their children to become merchants, clerks, bookkeepers, accountants, mechanics, engineers, and seamen. Such schools did not last long and largely disappeared by Revolutionary times, but their influence was strong, for their ideals of practical usefulness were absorbed by a still newer type of school, the academy, which was to make a much greater mark upon American education.

Town and District Control

The pattern of town control of schools in New England had been established in Massachusetts by the school laws of 1642 and 1647 and by similar laws in Connecticut and New Hampshire. Now in the eighteenth century a trend toward greater decentralization of school control took form; the district school system became a new pattern for educational control for generations to come. During the eighteenth century people pushed back from the seacoast to settle in the rural frontier regions of Massachusetts, Connecticut, New Hampshire, and Vermont. As settlements were made on isolated farms or on the outskirts of the central towns, the town schools become less convenient for the children of the backwoodsmen; furthermore, the back-country farmers saw little value in the town Latin schools. To be sure, they wanted elementary education for their children, but they did not want to pay for Latin schools that their children would not attend in any case. They therefore proceeded to supply their own elementary schools through their local school committees and selectmen, just as they provided churches and built roads and bridges. Inasmuch as the New England town included the surrounding rural area as well as the inhabited central town, these districts, or parishes, were still a part of the larger town authority, but they began to agitate for greater control over their own local or district schools.

At first the town teacher would travel from one district to another and spend a part of his time each year in the outlying districts. This arrangement has sometimes been called the "moving school." The teacher was hired and paid by the town authorities. Later, the districts sometimes obtained an arrangement whereby the town appointed and paid several teachers, one of whom was to spend all his time in one district. This was sometimes called the "divided school." Finally, the districts achieved full legal autonomy and full authority over their own schools

in the Massachusetts law of 1789. Thus, decentralized control was achieved in New England. The districts thereafter were free to build their own schoolhouses, appoint the teachers, set the length of school terms, control the curriculum, and provide whatever taxes they could.

The growth of the district system was distinctly a frontier and make-shift arrangement, suitable for an agrarian society where other governmental agencies could not function, population was scattered, and communication was difficult. As people moved from New England westward in the nineteenth century, they carried the district system of schools with them, but it soon showed its limitations, for its aspirations were low, its funds restricted by the resources of the neighborhood, and its ability to provide equal educational opportunity for all American youth exceedingly limited. Yet it elicited great loyalty and enthusiasm, and the "little red schoolhouse" has become a part of American folklore. This spirit fought the idea of state control of education in the nineteenth century and has fought federal support of education in the twentieth century.

State Interest in Education

Whereas the actual control of education was increasingly in local hands, the *idea* of state control of education began to gain greater headway as the political struggles of the Revolutionary period progressed. To be sure, nearly every colonial legislature before the Revolution had passed some laws concerning education, but outside of New England they had amounted to little. For example, the attempts of the colonial legislatures in New York and Pennsylvania to establish public schools broke down in the face of the influx of varied religious sects, each stimulated by the Great Awakening to run its own denominational schools. This was the pattern that prevailed in the middle and southern colonies, just as the district system prevailed in New England, but the growing interest of the states in public education before the end of the eighteenth century was a force later to be reckoned with.

The outstanding spokesman for state control of education in America before 1800 was Thomas Jefferson. Accepting the French ideals of humanitarianism, natural rights, equality, and liberty, Jefferson introduced into the Virginia legislature in 1779 a comprehensive document for the reform of the state's institutions. His bills proposed the repeal of the laws of primogeniture and entail and abolished taxation for the established Church of England. Jefferson also proposed a state system of free universal education as a corollary to these political, economic, and religious reforms. His bill proposed that free elementary schools should be established throughout the state in order to provide secular education for all children, that secondary schools should be provided

for the more intelligent youth at state expense, and that the most promising should be sent free to a reorganized and enlarged College of William and Mary, which would become in effect a state university to cap the state system. Jefferson's plan for education was not passed by the Virginia legislature largely through the opposition of religious groups and the College of William and Mary; but the ideal of free universal education had been stated, and it was later to achieve success in most American states in the nineteenth century.

When the colonies were reorganizing themselves as states during the Revolution, several of them expressed interest in state education. Approximately half of the first state constitutions mentioned education, stating that schools were needed and should be established or in some cases simply that schools should be cheap. Likewise, the early laws of some of the states made provision for establishing schools, in a range from secular schools to pauper and parochial schools; but some states had taken no action whatever by 1800.

Outside of New England the most comprehensive attempt to establish a state-wide system of education was made by New York when the University of the State of New York was established in 1784 as an administrative agency to exert control over the academies and Columbia College. New York also appropriated state money for aid to schools in 1795, and more than a thousand schools were established; but the time was not yet ripe for state support of education, for the money was withdrawn in 1800. Headway was being made but slowly; the ideal of public education under state control had to wait for nearly half a century before it could be fully realized with the help of Horace Mann, Henry Barnard, and many others.

Federal Interest in Education

Scarcely had independence been assured when a flood of pamphlets, articles, and essays began to set forth new theories of educational control for the new republic. The public discussion of education was stimulated by the American Philosophical Society, which offered a prize for the best description of a liberal education suitable to the new United States. Most of the writers who engaged in this contest were imbued with the French humanitarian doctrines of the perfectibility of man and the possibility of social progress by reforming social institutions, of which education was deemed one of the most important. The currents of thought represented by liberalism, democracy, and nationalism were caught up in these theories and focused upon American education.

Samuel Knox, Samuel Harrison Smith, Benjamin Rush, and Robert Coram argued that education should be practical, flexible, and adaptable to new conditions; it should be democratic and universally free to all

in order to provide equal opportunity and prepare citizens for their responsibilities in a democracy; and it should embrace a complete system of elementary, secondary, and higher institutions under national control and nationally supported in order to contribute to secular rather than religious outcomes and to ensure the greatest progress toward social welfare. President Washington was much interested in a national university as a means of unifying the new country and proposed to Congress that it be established. He even set aside some fifty shares in the Potomac Canal Company to help subsidize the university, but nothing ever came of the idea, despite subsequent proposals by other presidents and leaders.

It is interesting to note that these theories of national education were not put into practice. The tradition of religious and decentralized control of education was too strong to allow the federal government to set up a national system of schools; yet some steps were taken that were to have great influence upon American education. While the American states were operating under the Articles of Confederation, two ordinances were passed concerning the disposition of the new and vast public lands in the West, the claims to which the various states had given up to the federal government. The Ordinance of 1785 was passed to establish a policy for the sale of this public land. It provided that the land should be surveyed into square plots 6 miles on a side, to be known as townships. Each township was to be further divided into 36 sections, or squares, 1 mile on a side. The income from the sale of the sixteenth section, located in the center of each township, was to be used for common schools when the land was sold.

Two years later the Ordinance of 1787 reconfirmed this land policy and set forth the governmental principles to be followed when the Northwest Territory was settled (an area represented by the present states of Ohio, Indiana, Illinois, Michigan, Wisconsin, and part of Minnesota). The ordinance provided that the states carved out of this territory should assure free religious conscience, trial by jury, prohibition of slavery or involuntary servitude, good faith with the Indians, and common schools. What might be called the charter of public concern for education was contained in the following famous sentence: "Religion, morality, and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall forever be encouraged." This meant that the income from the sixteenth sections would be dispensed by civil authorities and therefore at least some of the support of common schools would come from public sources. Important policies on education were thus being formulated by the federal government even though a national system of education was not established.

When the Constitution was drawn up and ratified in 1789, no mention

of education was made in it. Apparently most of the members of the Constitutional Convention felt that other matters were of more pressing concern, and many considered education properly to be a function of the churches rather than of local civil government, let alone the national government. The Federalists were interested in a strong federal government but not in education for the common people; therefore they did not desire national education. The Republicans were interested in education for the common people but opposed a strong national government; therefore they did not want national control of education.

Even the Bill of Rights did not mention education directly. But the First Amendment guaranteed religious liberty, which the churches took to include the right to conduct schools, and the Tenth Amendment reserved to the states or to the people all powers not delegated by the Constitution to the federal government or prohibited by it to the states. This was later interpreted to mean that the states could assert their rights to establish and maintain schools. By ignoring the opportunity for federal support of education the framers of the Constitution made it difficult for the states to win their legal right to control education and for the federal government to win the right to support general education.

Types of School Support

The early sources of revenue for American schools in the eighteenth century were varied and often complicated. In general, schools were supported in two principal ways, (1) direct payment by parents for the education of their own children and (2) by direct or indirect means that helped to educate other children as well as one's own. The first form, direct payment for the education of one's own children, was primarily by tuition fees and by rate bills. Fees were paid to teachers of dame schools, to parish priests in the South, to private tutors, to teachers of private Latin grammar schools, to teachers of the new, private English schools of the seacoast towns, to the academies, and to the colleges. Rate bills were of the same general nature except that they represented the fees paid by parents whose children went to town schools set up by civil authorities. Rate bills were usually fixed pro rata according to the length of time the child attended in relation to the total expenses of the school.

The second type of support involved a good many methods of indirect help for the education of other children as well as one's own. Individuals gave money, land, or income-producing property of various kinds to private schools, to specific charity schools, to churches for the support of their schools, or to such school societies as the Society for the Propagation of the Gospel in Foreign Parts. These gifts, bequests, and endowments were put into the operation of the schools to help de-

fray expenses; poor children were often given free or charity education, whereas parents who could afford to pay were charged tuition.

The civil authorities used a variety of means to support schools, including local taxes, income from land grants, appropriations from general funds, the proceeds of licenses, and taxes on liquor, peddling, and lotteries. These funds were often given by civil authorities to private and religious schools as well as to town and public schools. For example, the state of Massachusetts in 1797 gave land grants to certain private academies, and other states did likewise; colleges as well as lower schools were often the recipients of governmental as well as private aid. Near the end of the century some states began to set aside "common school funds" into which they would put a variety of revenues to be used for the benefit of the public schools.

Control of Higher Education

The principal stimulus to higher education during most of the eighteenth century came from the churches. The Great Awakening prompted the denominations to set up colleges for youth in a setting favorable to their faiths and for the training of ministers in their particular beliefs. The College of William and Mary was founded in Virginia in 1693 under Church of England auspices. Yale was founded in 1701 to give the Congregationalists a higher education more suitable to their conservative outlook than could be obtained in the increasing atmosphere of religious liberalism at Harvard. Princeton was founded by the Presbyterians of New Jersey in 1746, King's College (Columbia) by the Anglicans of New York in 1754, Brown by the Baptists of Rhode Island in 1764, Rutgers by the Dutch Reformed of New Jersey in 1766, and Dartmouth by the Congregationalists of New Hampshire in 1769. The College of Philadelphia, built upon Franklin's Academy, was given a charter in 1755. Together with Harvard these eight colleges comprised the institutions of higher education founded in the colonies before the Revolution.

Two trends of great importance to American higher education took place in the control of colleges before 1800. The first was the increase in power of the nonresident board of trustees, which became the full legal authority for the colleges. When Harvard was founded, the corporation consisting of the president, treasurer, and five resident tutors was intended to be the full legal governing body, having all the powers of a corporation at law. This followed the British models in which the faculty was the autonomous, self-governing university. Gradually, however, the members of the Harvard Corporation came to be made up of nonresident members, and control began to shift from the faculty to this nonresident board. Much the same sort of development took place at

William and Mary during the eighteenth century. When Yale was founded, the nonresident governing board was made up of 10 ministers and did not even include the president until 1745. Most of the other colleges followed this pattern, doubtless reflecting the desire of the churches to keep a fairly close watch over the affairs of the colleges. Despite considerable actual autonomy often given to the resident faculty, the legal authority remained with the nonresident board.

The second noteworthy trend in college control came with the upswing of republican and democratic ideals following the Revolution. Impressed by the humanitarian arguments for a complete system of education under state control from the lowest schools to a university at the top, the democratic forces took what seemed to them a logical step, namely, to transform the private, religious colleges into state institutions. Harvard, William and Mary, and Yale resisted successfully several attempts by the states to increase their control, but the most determined efforts at state control before 1800 were made at Columbia and Pennsylvania.

After the Revolution, the democratic forces in New York State tried to make Tory and Episcopalian Columbia into a state university. It was given the principal place at the top of the newly created University of the State of New York but was soon restored to its private status, and the University of the State of New York was left simply with jurisdiction over lower schools. In Philadelphia the college, which had originally been nonsectarian, came under Anglican and Tory control, and so the democratic forces in Pennsylvania in 1779 set out to convert it into the University of the State of Pennsylvania. The old college, however, refused to give up its charter and continued to exist for 10 years alongside the state university, until 1789, when the religious and political interests in the state were realigned and the original college was given back its charter. After 2 years of struggle the Presbyterians became so powerful that the two institutions were merged in 1791 into the University of Pennsylvania, a private and independent institution, which it has since remained.

Meanwhile, the democratic forces began to establish new institutions created from the beginning as state universities. Four were established before 1800, in Georgia, North Carolina, Vermont, and Tennessee, notably in states where no colonial religious college had been established. The real impetus for state universities, however, arose in the nineteenth century.

Status of the Teaching Profession

It was only natural that the strong religious control of American schools in the eighteenth century should mean that the most common

qualification for teaching was religious orthodoxy in the view of the controlling church. Academic qualifications ranged from the ability to read and write to a college education; the qualifications of secondary school teachers were usually higher than those of elementary teachers. In many instances loyalty to the existing government was expected of the teacher, and other qualifications were usually stated in terms of good moral character, "sober conversation," and, in general, an exemplary personal life as a guide for the pupils.

In colonies and states where religious control of schools was uppermost the local clergy and higher church officials were usually charged with the appointment and supervision of teachers. In New England, where civil control was dominant, the local town meeting, selectmen, or school committee took the responsibility for appointment and supervision, although the local minister often had the power of approval as well. It was common for citizens to visit the schools, observe their conduct, and judge the achievements of pupils as displayed in public ceremonies or on special occasions. The interest of the citizens and parents of a community concerning what went on in their schools was an early phenomenon in American education and helped to set the pattern of public concern for schools. This had the advantage of keeping the schools close to the people but also raised the knotty problem of how to achieve a balance between the public's interest in education and the teaching profession's responsibility for the conduct of schools.

During the eighteenth century the pay for teachers was still quite low and took varied forms. Teachers were paid in money (often at irregular intervals) as well as in the form of "boarding around," gifts or produce, or exemptions from taxes. The social respect accorded to teachers was doubtless higher than their salaries, even as now. Schoolteaching was often considered a part-time job to be performed along with other religious or civic duties or while a young man was waiting to go into law, the ministry, or some other more lucrative profession.

Nonschool Agencies of Education

The agencies of public enlightenment and the dissemination of knowledge gained great headway during the eighteenth century. The reading public doubtless expanded rapidly, as represented in the fact that more than 30 newspapers were being published by the time of the Revolution, books were published in several centers, and a mass of pamphlets was being issued. Franklin's efforts in the newspaper field and in the publishing of his *Poor Richard's Almanac* were representative of many others. Paine's stirring pamphlets had wide circulation; along with the propaganda techniques of Adams, they helped mold public opinion in the Revolutionary cause. Several noteworthy private libraries and many

public libraries were founded, as well as societies for the wider dissemination of knowledge, the most important of which was the American Philosophical Society founded in 1769. The New England town meeting became an influential center where people could express their opinions, debate public issues, carry on public discussion, and make decisions of common concern. Vocational education was commonly acquired, as it had been for centuries, in the process of apprenticeship, which had its origins in the seventeenth century and was extended by state and local laws in the eighteenth century.

EDUCATIONAL AIMS, CURRICULUM, AND METHODS

New Aims Added to Old

The religious, Humanistic, and rationalistic aims that had shaped early colonial schools remained strong during the eighteenth century. The religious motivation of Reformation times was given further impetus by the evangelism and religious revivalism of the Great Awakening; the Humanistic motivation for the study of the classics held its place in the Latin grammar schools and in the new colleges that were founded in the eighteenth century; and the rationalistic motivation behind the linguistic, bookish, and mathematical studies remained strong. However, the new currents of political, economic, and scientific thought of the European Enlightenment were entering American education, not yet to challenge the superiority of the other aims, but gaining headway and finding such support that they were ready to challenge and even surpass them in the nineteenth century.

The political forces of democracy and nationalism began to affect educational theory to such an extent that some American leaders, as already noted, began to say that education in a democracy should be available to larger numbers of citizens. Despite the sentiments of democracy, however, the Latin grammar schools and most colleges maintained their essentially aristocratic character, and therefore it was left to the new private schools and academies to meet the need for extending educational opportunity to wider groups in society. The economic influence of commercial capitalism took the form of a demand for more practical studies that would prepare for a life of useful occupations; and when these demands met with little response from the Latin grammar schools and colleges, new institutions arose to serve these purposes.

The scientific outlooks likewise began to make themselves felt in education in various ways. The intellectualized religious outlook known as Deism began to filter into some of the colleges as a reaction against the highly charged emotionalism of the Great Awakening. A good deal of religious skepticism appeared in some of the colleges in the 1790's along

with such "radical" religious doctrines as Unitarianism. The scientific impact also began to be felt in the acceptance in some quarters of the empiricism and sense realism that stemmed from Comenius, Francke, and Locke and expressed itself most typically in a greater attention to the study of science in the private schools and some of the colleges.

Elementary Schools

The elementary schools of the eighteenth century were essentially schools to teach young children the elements of reading and religion. They were primarily designed to teach English "letters," and thus the ideal of literacy was the prime goal, literacy as achieved through reading religious materials. Little more was attempted, and little more was accomplished. Occasionally some writing and arithmetic were taught. More commonly, these subjects were taught in separate "writing" schools, and in general these "writing" schools were considered to be somewhat more advanced than the reading schools. Reading was taught in the New England town schools, in the dame schools, by private tutors, in church schools, and in the charity schools of the Society for the Propagation of the Gospel in Foreign Parts.

The most influential of the reading books used in the eighteenth century was the *New England Primer*, which was based upon primers printed in England and first published in America just before the beginning of the eighteenth century. The *New England Primer* went through many editions by the end of the eighteenth century. It illustrates above all how learning to read was thoroughly imbued with the religious sentiments of Puritanism. It commonly contained the alphabet in capital and small letters; lists of syllables; and lists of words emphasizing moral concepts, for example, abusing, bewitching, confounded, drunkenness, faculty, godliness, impudent, everlasting, fidelity, glorifying, and humility. Then came the famous woodcuts illustrating the letters of the alphabet and accompanied by religious and moralistic rhymes, many of them reflecting the gloomy outlook of Puritanism. The reading material followed, usually under such headings as "The Dutiful Child's Promises" and "An Alphabet of Lessons for Youth," and including the Lord's Prayer, the Apostles' Creed, the Ten Commandments, the names of the books of the Old and New Testaments for memorizing, religious verses and stories, and finally the Westminster Catechism. Elementary arithmetic through learning the Roman and Arabic numerals was made part of religious training by being considered a means "for the ready finding of any Chapter, Psalm, and Verse in the Bible."

Later in the century newer editions of the *New England Primer* began to reflect patriotic sentiments commensurate with the outlook of the new nation. For example, the early rhyme describing the letter K and

expressing loyalty to the king of England had read, "Our King the Good, No man of blood." After the Revolution, patriotism became the motif: "Kings should be good, Not men of blood," "The British King, Lost states thirteen," or "Queens and Kings, Are gaudy things." Other changes reflected patriotic and nationalist sentiments; "Whales in the sea, God's voice obey" became "Great Washington brave, His country did save."

Not only did the patriotic motif begin to appear after the Revolution, but also a good deal of secular material was inserted. Stories about punishments for bad boys and girls no longer involved eternal suffering in hell but stressed the withholding of the oranges, apples, cakes, and nuts that went to the good. Furthermore, the practical values of learning to read began to replace its use in reading the Bible. For example, the *New England Primer* exhorted pupils in the following manner:

He who ne'er learns his A.B.C.
Forever will a blockhead be.
But he who learns his letters fair
Shall have a coach to take the air.

The *Primer* began to lose ground after the Revolution as more sprightly reading books began to appear, one of the most famous of which was Noah Webster's "blue-backed speller" entitled *Elementary Spelling Book*. Webster gained interest through its moralistic and patriotic sentences, and the book was a popular favorite among primers for a hundred years after its publication in 1784. The secularizing of the elementary school curriculum, thus begun during the eighteenth century, was to make much more rapid strides in the nineteenth century.

Secondary Schools

At the opening of the eighteenth century the dominant secondary school was the Latin grammar school taught by the public schoolmasters in the town schools of New England and by private tutors or religious teachers in other parts of the country. It was basically a college-preparatory institution, designed primarily to give its students a grounding in Latin grammar. It was thus essentially aristocratic, for only a relatively few boys could expect to go to college. Gradually, the secular aspects of life began to demand a newer type of secondary education. Two types of schools arose to meet these interests. The first was the private "English" school. The second type, known as the academy, came to dominate the field of secondary education by the end of the century.

Private "English" schools. Responding to the rising interests of the commercial and trading classes early in the eighteenth century, many

schoolmasters began to teach practical subjects that had greater and more direct vocational value than the classics. The basic language of their so-called "private schools" was English; thus, for the first time in America there was a conscious attempt to adapt educational institutions to a changing social situation. Inasmuch as their aim was not primarily preparation for college, the curriculum of these schools was not prescribed or circumscribed by college-entrance requirements. Rather, they were free to offer any courses for which there was a demand or for which a demand could be created.

Thus, the private schools were more flexible than the Latin grammar schools; they admitted anyone who wished to study and pay the fees, adults as well as youth, girls as well as boys. Students took whatever courses they felt would be valuable to them, and hence a kind of elective system was inaugurated, for there was no diploma or degree or prescribed curriculum. Classes were held at whatever hours students could come, early in the morning before working hours, at the noon hour, late in the afternoon, or in the evening after working hours. As a result, young people could go to school while they worked, and thus a broadened clientele of middle-class youth made these schools more democratic than the Latin grammar schools, which remained highly selective in character by reason of their more highly specialized college-entrance aim.

High on the list of studies taught by the private schools were the commercial subjects (bookkeeping, accounting, penmanship, and commercial arithmetic) designed to prepare clerks, accountants, bookkeepers, merchants, and bankers for jobs in business and trade. The mathematical subjects also were taught for their vocational usefulness in such increasingly important occupations as navigation and civil and military engineering. In many cases the mathematical teaching in the private schools was as good as if not better than that found in some of the colleges. The mathematical subjects included algebra, geometry, astronomy, trigonometry, calculus, navigation, surveying, optics, fortifications, and gunnery.

The modern languages, which found little acceptance in colleges or Latin grammar schools, were also quite common in the private schools—French as the polite language of high society, and Italian, Spanish, and Portuguese as the commercial languages of importance. Geography and history were widely advertised as of general value for everyone and of special value to traders and navigators. In addition, the private schools offered the classics for any who wished to prepare for college. The private schools thus did much to develop the "practical" and "modern" subjects that were disparaged for so long by classical Humanists but that challenged the supremacy of the classics in the nineteenth century.

The private schools were more democratic than the Latin grammar

schools in another sense: they opened the doors for advanced education to girls. Some private schools allowed girls to attend with boys, some held special classes for girls, and others catered particularly to girls. The most common subjects for girls were reading, writing, arithmetic, geography, and French, but many other subjects were also offered in different schools—the general subjects of English grammar, history, and Latin; the vocational subjects of bookkeeping, accounting, and the modern languages; and the polite, or social, accomplishments of drawing, painting, singing, instrumental music, sewing, and penmanship. Hence, the groundwork of education for girls was being laid, upon which were later built the academies for girls, the “female seminaries,” and eventually the colleges for women.

Franklin's academy. As early as 1743 Benjamin Franklin had first proposed the establishment of an academy in Philadelphia, but he really pressed the matter in 1749 when he circulated his *Proposals Relating to the Education of Youth in Pennsylvania* and set out to collect funds for its foundation. The academy was finally given a charter by the state in 1753, and to it was added the charter for a college in 1755, from which developed the University of Pennsylvania. In his outline for an academy Franklin embodied the prevailing tendency of the private schools to offer utilitarian subjects for vocational preparation as well as classical languages for college preparation. He proposed that the new academy should have three departments, English, Latin, and mathematics; students should be allowed to choose their course according to the several occupations or professions for which they were preparing.

Franklin's proposals seemed to include nearly all the subjects he could think of. The range and variety were in sharp contrast to the rather limited curriculum of the Latin grammar schools—writing and drawing, arithmetic and accounts, geometry and astronomy, English grammar, composition, and literature, rhetoric and oratory, logic; history (universal and national history, ancient customs, moral, religious, and political), ancient and modern languages (Greek, Latin, German, French, Spanish), sciences (observation, experimentation, and natural history), history of invention, commerce, and manufacturing; and agriculture, gardening, and mechanics. Franklin further proposed that the academy be surrounded by gardens, meadows, and an orchard for use by the students in their studies and for physical exercise. Furthermore, the academy should be well equipped with a library, maps, mathematical instruments, and scientific apparatus.

It is apparent that Franklin represented the European influences of empiricism, sense realism, and the new science as well as his own experimental, commercial, and utilitarian interests. Significantly, also, he made no mention of religious or sectarian instruction, except for the

history of religion, which was well within the deistic outlook. In practice, the academy did not work out as Franklin had planned, for some time later he was complaining that the English school had been subordinated to the Latin school. The classical tradition and college-entrance requirements proved to be too strong even for Franklin, and his academy became virtually another college-preparatory institution. Nevertheless, another step had been taken in the promotion of the practical, the modern, and the scientific studies; and when other academies appeared, they had advanced considerably beyond the traditional Latin grammar school.

The academy movement. Although the private schools had met a need, they apparently had gone too far in their departure from the classical and religious traditions of the Latin grammar schools. The theory behind Franklin's academy had been to combine the practical and modern with the classical, but he too had gone too far, for he had left out the religious element. The institutions that actually replaced the Latin grammar school were the academies, which absorbed into themselves the principal influences of the Enlightenment in America, not only the classical, the practical, and the scientific, but the religious factors as well.

The academies that were to have real influence were founded in the later part of the eighteenth century by the churches or by individuals with strong religious interests. The Dissenters' Academies in England had shown that religious schools could have a broader curriculum, and the Great Awakening gave the American impetus to establishing such schools for religious as well as practical purposes. The classics were also included, for the promoters of the academies wanted their children to be able to go on to college. In general, the academies thus combined the aims of college preparation with religious piety and vocational efficiency.

The academies differed from the Latin grammar schools and the private schools, for they were usually boarding schools in which the students lived together away from home. Academies for girls also soon became common. The academies often came to be local substitutes for colleges, and indeed many of them were sooner or later transformed into colleges. Commonly, too, they were nonpublic institutions, supported by tuition from parents or by endowment from churches and from wealthy individuals. Support also came from several of the states, as the academies caught the public fancy and became centers of the first deliberate efforts to train teachers.

Despite their private character, the academies were more democratic than the Latin grammar schools because of their wider appeal, their broader and more elastic curriculum, and their more inclusive aims. They helped to introduce into the secondary school curriculum English grammar, composition, and literature, English rhetoric, history, mathe-

matics, the modern languages, some commercial subjects, and, especially for girls, the social arts of dancing, music, drawing, and needlework. Not long after the beginning of the nineteenth century, however, the academies succumbed to a more narrowly conceived classical tradition and college-preparatory demands. They ultimately became so rigid and exclusive that they, too, had to give way to an even more democratic institution that was more adaptable to the newer social demands of the nineteenth century, the public high school.

As the newer subjects became popular, there was greater demand for more textbooks in these fields. For example, the first text in English grammar used in America was Thomas Dilworth's *New Guide to the English Tongue*. Soon American authors tried their hands at writing English grammars; the first of these authors were college teachers, Hugh Jones, professor at William and Mary, and Samuel Johnson, president of King's College. The most influential grammars, however, were written by Noah Webster and Lindley Murray late in the century. The most noteworthy textbook in arithmetic was written by Isaac Greenwood, private schoolmaster and professor of mathematics at Harvard College, the title of whose book published in 1729 revealed his practical outlook—*Arithmetic Vulgar and Decimal with the Application thereof to a Variety of Cases in Trade and Commerce*. History began to gain more attention, especially in the texts on reading and geography. For example, Noah Webster inserted a good deal of historical material into his reader, and Jedidiah Morse included a good deal in his *Geography* published late in the century. Other texts began to appear in the commercial subjects, practical mathematics, and the modern languages.

Higher Education

During the eighteenth century, the Enlightenment ideals of science and practical utility gradually began to affect the religious outlook and curriculum of some of the colleges, but most of the colonial colleges held fairly strictly to the religious, Humanistic, and rationalistic aims of earlier days.

Liberalism at Harvard. Under the presidencies of John Leverett and Edward Holyoke from 1708 to 1769, Harvard's Congregationalism began to change from early Calvinism to eighteenth-century Deism and Unitarianism. Holyoke's liberalism was enough to make the stricter Calvinists suspect Harvard and to provoke the overseers to try to extract oaths of orthodoxy from the tutors and to censor commencement theses. Despite such inspection and the return to fundamentalism that the Great Awakening sponsored, Harvard maintained its advances over the sectarianism of Yale, Princeton, and other colleges that followed the popular evangelistic trend of the Great Awakening.

By the beginning of the eighteenth century, the new Enlightenment science had begun to creep into the traditional studies of Harvard. Cartesian logic, the geometry of Ramus, and the physics of Newton gradually gained a hearing; and the astronomy of Copernicus, Galileo, Kepler, and Gassendi began to replace that of Aristotle, Ptolemy, and Dante. In 1728, Thomas Hollis established a professorship of mathematics and natural philosophy and contributed books and "philosophical apparatus," which by 1769 included skeletons, globes, microscopes, and mechanical instruments as well as the transactions of the English Royal Society and the French Academy of Sciences. As the first Hollis professor of mathematics and natural philosophy, Isaac Greenwood wrote books on arithmetic, meteorology, mine damp, and the aurora borealis. He did much to bring the college into closer touch with the practical spirit of the age and to attract to Harvard practical-minded young men who might otherwise have gone to the private schools or into business. His successor, John Winthrop, held the post from 1738 to 1779 and proved himself to be the most accomplished scientific investigator in America next to Benjamin Franklin. By 1743, the Harvard curriculum included more of Enlightenment science and philosophy in the form of Isaac Watts's *Astronomy* and Locke's *Essay Concerning Human Understanding*.

It is thus apparent that, by the time of the American Revolution, Harvard had begun to show a definite interest in the new science and philosophy, though the paramount emphasis remained upon the classical languages and mathematics. The change had been made from the old Aristotelian science and philosophy to that of the Enlightenment, but the aim was still to provide a liberal education to prepare men for aristocratic leadership in church and state rather than for directly earning a living.

The Great Awakening reaffirms the traditional liberal arts. When the College of William and Mary received its royal charter in 1693 under Anglican auspices, it was founded primarily for religious purposes, namely, to train ministers, to educate youth piously in good letters and manners, and to extend Christianity to the Indians. Its curriculum was similar to that of the Oxford colleges and did not change much during its first 85 years of existence. When Thomas Jefferson tried unsuccessfully to reform its course of study in 1779, there were only six instructors, two in divinity and Hebrew; one in logic, rhetoric, and ethics; one in physics, metaphysics, and mathematics; one in Latin and Greek; and one for teaching Indian boys the elements of religion. This curriculum was guided largely by the same interests as at Harvard, namely, to raise up an educated clergy for leadership in the church and state and to pro-

vide a liberal education for others who were destined to join the aristocracy.

The religious temper at Yale was even more marked, especially under the spell of the Great Awakening. In 1735, the Connecticut General Court declared anew that the "one principal end proposed in erecting this college was to supply the churches in this Colony with a learned, pious and orthodox Ministry." During most of the eighteenth century, its curricular development largely paralleled that of Harvard; the original course was changed gradually in the direction of the new science and philosophy of Newton and Locke.

The most significant difference, however, between Yale and Harvard up to the time of the American Revolution seems to have been that Yale gave greater emphasis to the religious nature of college education and the desirability of continuing the prescribed curriculum for religious ends. Whereas the religious position of Harvard had been considerably liberalized, the following statement of President Clap in 1754 illustrates the more traditional position of Yale:

Colleges are *Religious Societies*, of a Superior Nature to all others. For whereas *Parishes*, are Societies, for training up the *Common People*; Colleges, are Societies of Ministers, for training up persons for the Work of the *Ministry*. . . . Some indeed, have supposed, that, the only design of Colleges, was to teach the Arts, and Sciences. . . . But it is probable, that there is not a College, to be found upon Earth, upon such a Constitution.¹

This is the typical Reformation attitude, which reinforced the classical and Renaissance conception of a liberal education. These aristocratic and religious notions still purported to provide the kind of liberal education suitable to a gentleman. Both Yale and Harvard were generally similar in their loyalty to this tradition and to an emphasis upon the study of divinity, the classics, mathematics, and philosophy, but the greater strength of the religious conception at Yale ultimately worked to keep Yale more loyal to the prescribed curriculum than was the case at Harvard. Several other colleges that sprang up during the Great Awakening followed the traditional attitude of the earliest colleges and were founded largely for religious reasons. Their histories up to the Revolution showed little that was radically different from that of the earlier religious foundations.

A new conception of liberal education. With the founding of King's College (Columbia) in New York City in 1754, there was a gradual shading off in the strictly religious aim; and, with the establishment of the college in Philadelphia in 1755 (University of Pennsylvania), there ap-

¹ THOMAS CLAP, *Religious Constitution of Colleges, Especially of Yale-College in New Haven* (T. Green, New London, Conn., 1754), p. 4.

peared a vastly wider conception of the aim and content of a liberal education, which implied that college studies should contribute to the commercial and civic usefulness of the many as well as to the religious and civic leadership of the few. The literary and aristocratic conception of a liberal education was challenged, however faintly, by a more practical and democratic conception of higher education.

King's College represented a new departure chiefly in the fact that the traditional aim to train ministers seems to have been absent and that there was careful provision to tolerate different religious beliefs. The charter provided that no persons should be denied entrance to the college or prevented from acquiring a degree or any of the benefits of the college because of his membership in any denomination or because of his religious beliefs. Although the college was founded nominally under Anglican auspices, the board of trustees included not only the rector of Trinity Church but also ministers from the Dutch Reformed, Lutheran, French, and Presbyterian churches. Toleration of different religious beliefs among the students had also been authorized in the charter of Princeton and other colleges, but the aim to provide ministers was uppermost in all but King's College and the college at Philadelphia.

With this freer religious atmosphere went a proposal to broaden the liberal arts at King's College to include many of the practical and scientific subjects that were useful for the more efficient pursuit of the commercial activities of the time. These proposals were formulated by Samuel Johnson, first president of King's College, whose desire to make college studies more useful for everyday life was perhaps intensified by his association with Franklin. He had been offered by Franklin the position of provost of the new college at Philadelphia (a fact that perhaps attested to their similarity of views), but he had refused in order to become head of King's.

In spite of Johnson's leanings, the literary and classical conception of a liberal education was evidently too strong to permit a radical departure from it so soon, for the curriculum actually adopted at King's College in 1755 and again in 1762 was very similar to those of the traditional colleges with which King's College had to compete. The 4 years of study were heavily weighted with Latin and Greek grammar and literature, rhetoric, ethics, and philosophy; and strict disciplinary control was to be enforced over the minutest details of student life. Thus, although the conception of the liberal arts came to be expanded to include scientific and utilitarian as well as the traditional subjects, the actual practice at King's College did not fulfill the proposals.

The Reverend William Smith, the first provost of the college in Philadelphia, drew up its rather broad curriculum. Of Scottish descent, Smith had attended the University of Aberdeen, and it is possible that his cur-

riculum for the Philadelphia college was framed substantially from the course that had shortly before (1753) been revised at King's College, Aberdeen. Although his Scottish training may have influenced him, Smith was also undoubtedly attracted by Franklin's theories and practices, which clearly corresponded to those which he had earlier formulated for himself. In his allegorical treatise entitled *A General Idea of the College of Mirania* (1753), Smith divided all "Miranians" into two classes, those intended for the learned professions and those intended for the trades, each class to have its own special school. He pointed out that there was little chance for the second class to receive useful instruction in the usual colleges, and he therefore proposed the establishment of a mechanics' school, which, he said, did not need much explanation because it was so much like Franklin's English school in Philadelphia.

Whatever the source of his ideas, Smith drew up "A Scheme of Liberal Education" that was accepted by the trustees of the Philadelphia college and that embraced the widest course of study and variety of subjects of all colleges in America at the time. It seems as if he were trying to crowd into the curriculum all the subjects that he had proposed for the Miranians. The college was planned to include three "Schools of Philosophy," in addition to the usual classical and rhetorical studies; and a long list of miscellaneous readings to supplement the required lectures was appended to the curriculum. In this plan, drawn up by Smith, is found the clearest evidence in America that the colleges were accepting the new science and philosophy that the Enlightenment had produced. Its effect was to widen the scope of the curriculum and to extend considerably the conception of the liberal studies that a young man should be versed in, no matter what occupation he was to enter.

Some of the subjects that Franklin's academy and the private schools had offered as specialized studies for utilitarian purposes now entered into the prescribed liberal arts curriculum of this college, along with the traditional classical languages and mathematics. It is significant that no works relating to divinity, except the Bible itself, appeared in the prescribed curriculum or in the miscellaneous readings. That Smith thought he had included every useful branch of knowledge in his conception of a liberal education may be indicated by the following statement from his original proposal:

Thus we see that this institution is placed on a most enlarged bottom, being one great collection of schools, under a general government; in which all the branches and species of education are carried on that can be conceived necessary for any community, whether in the learned professions, in merchandise, in the mechanic arts, or inferior callings.¹

¹ HORACE W. SMITH, *Life and Correspondence of the Rev. William Smith* (S. A. George and Company, Philadelphia, 1879), Vol. I, p. 62.

Although the elective principle was not embodied in this new curriculum, the principle of admitting subjects to the curriculum because of their utility was clearly enunciated. It was the ultimate overburdening of the curriculum with new fields of knowledge arising out of increasing demands for ever more useful subjects that eventually became a strong factor in the development of the elective practice.

In summary, the Enlightenment of the eighteenth century wrought changes in the curriculum of the American colleges, especially when it came to adding scientific and commercially useful subjects, to follow the trends of the times. Expansion in scientific knowledge, the refinement of skills needed in trade and commerce, and the prevalence of individualistic ideals of economic gain were responsible for what changes occurred, but the conception still held sway that a liberal education ought to be a complete round of prescribed studies heavily weighted on the linguistic and mathematical sides. The Philadelphia college helped to add the criterion of success in commercial endeavors to the traditional criteria of religious and civil leadership, but it maintained a completely prescribed curriculum.

Although the new science and philosophy were added slowly to the prescribed curriculum of the denominational colleges, these still kept essentially to the conception of a liberal education as embodying a study of Latin, Greek, mathematics, and philosophy as the best preparation for an aristocratic leadership in church and state. Franklin's theories contained the seeds of the elective idea, and the expanding curriculum supplied fertile ground for its development. But it was not until the quickening of life during the nineteenth century and the infiltration of ideas from abroad that the elective idea received its first explicit formulation, and it was not until the forces of a highly industrial society were at work in the latter half of the nineteenth century that the traditional notion of a liberal education was really put upon the defensive.

Professional education. Because the colonists followed the pattern of the English universities, they set up liberal arts colleges rather than universities on the medieval pattern. Therefore, the higher faculties of law, medicine, and theology were not present in the beginnings of American higher education. Education for these professions during most of the eighteenth century was gained by apprenticeship to a practicing lawyer, physician, or clergyman. Study in the colleges no doubt contributed to the background appropriate for lawyers as the students read books on rhetoric, logic, and politics, but no specialized instruction in law was given until 1793, when a Kent professor of law was established at Columbia. Likewise, in medicine, professional training was acquired when boys in their teens were apprenticed to physicians to do the menial work and pick up what information they could. In general, American medi-

cine lagged considerably behind European medicine in the eighteenth century and was shot through with quackery and old wives' tales. However, as the study of science began to gain ground and as more physicians came to America from England and France, special instruction in medicine began to appear in a few colleges, notably at those colleges where science had received particular emphasis, the college at Philadelphia, King's College, and Harvard.

Training in theology fared somewhat better because of the religious interests of most colleges. Students with a bent for theology could do special work with the professor of theology, who was often the president, or the young graduate might stay on after receiving his B.A. degree and receive theological instruction in the religious doctrines of the church that sponsored the college. He could then be apprenticed to a clergyman or teach school while waiting the call to a pastorate.

CHAPTER XIV

EUROPE IN THE NINETEENTH CENTURY

THE INSTITUTIONS MEN LIVED BY

Major Patterns of Social Organization

The nineteenth century was a period of swift change that brought to a culmination several of the political, economic, and social trends that had been developing in the Enlightenment. Four of these trends were particularly important for their impact upon education—nationalism, liberalism, industrialism, and capitalism. Interrelationships among these four patterns produced the complicated social structure and much of the social conflict of the nineteenth and twentieth centuries.

Nationalism. The trend toward nationalism that had become so important in Reformation and Enlightenment times moved toward a rapid culmination in the nineteenth century. The national state became the supreme unit of political authority of the modern world as contrasted with the medieval and feudal world. Central to the ideal of nationalism was the conception of complete sovereignty. The sovereign state was assumed to be entirely independent of any legal or moral authority beyond its own borders. No matter whether the state was an absolute monarchy, a constitutional monarchy, or a republic, it was conceived to be the supreme political power possessing the right to determine its own boundaries, its own form of government, and its own internal arrangements.

In the process of building up political nationalism, most states began to appeal to the idea of cultural nationality as never before. People began to think of themselves primarily as Frenchmen, Englishmen, Germans, Italians, Poles, Russians, and the like. Each nationality laid claim to a common historic background, a common language, common customs, and perhaps a common religious, artistic, and institutional life. More than ever before it became important to the people of one nationality to be joined together into one national, political state, and thus great efforts were exerted to make the boundaries of the political state identical with the lines of cultural nationality. To this end it became important to foster in the people a strong feeling of loyalty to the state and pride in their nationality. It was only natural, then, that education

should be used as a prime means to develop the spirit of nationalism. During most of the nineteenth century, nationalism was often liberal in its aim to help nationality groups achieve freedom from "foreign" oppressors and thus to achieve political self-determination. A great many of the revolutions and wars of the nineteenth century were undertaken by groups struggling to transform their cultural unity into political unity.

Liberalism. Stemming from the great humanitarian movements of the Enlightenment period, liberalism won many victories. Nineteenth-century liberalism concentrated particularly upon achieving a greater measure of political democracy and fought for the extension of the voting rights to an ever larger proportion of the people. Coupled with the ideal of the consent of the governed in political life went the ideals of equality, individual worth, and the civil liberties as a fundamental necessity for a decent society. Many of the struggles of liberalism centered in the effort to achieve and maintain freedom of speech, peaceful assembly, and petition; freedom of religion; and the rights of human reason to follow the truth wherever it might lead.

Within liberalism there was a continued struggle between two types. One elevated the ideal of individualism so high that it insisted upon a laissez-faire conception of the state in which progress was thought to be most possible if the state allowed individuals to seek their own interests. The second type of liberalism drew inspiration from the ideals of French humanitarianism and insisted that social progress was possible only if the state sought positively to reorganize institutions in the interest of the masses of people and to raise the level of common life by serving the welfare of the greatest number.

The industrial conditions of life were changing so rapidly that more and more men began to believe that social liberalism was necessary in order to improve the economic welfare of men as well as to gain a more widespread political democracy. Thus, in the latter part of the century the labor movement took its modern form and adopted an economic and social as well as political program. Men began to feel that the common people had the right to earn a better living as well as the right to vote. Resistance to this ideal of economic and social democracy became even greater than the resistance to the extension of political democracy.

Industrialism. Perhaps in the long perspective of history the most fundamental revolution of the nineteenth century was the Industrial Revolution. Nationalism had been several centuries in the making, and liberalism had appeared in other forms from Greek times on; but industrialism was something new under the sun. Never before had power-driven machinery appeared on the scene in any way to compare with the development of steam engines and water power. The Enlightenment had

developed the methods and ideas of modern science to a high degree, but a new era was ushered in during the latter part of the eighteenth century when science was finally applied to the production and distribution of goods. The essence of the Industrial Revolution was the development of technology, which affected all phases of the economy.

Technology meant that power-driven machines took the place of hand-operated machines and that the productivity of an individual was increased enormously. Mass production meant, further, that the making of goods could no longer take place in the homes or small shops of the workmen but now went on in a central place where the power was available, namely, in the factory. The factory system thus displaced the "domestic" system of economy. Industrialism also meant that, as more goods were produced, more raw materials were necessary. Therefore, each country began to look about for the richest sources of raw materials and to cast covetous eyes upon the undeveloped regions of the world. It is highly important to remember that the industrial changes wrought in the nineteenth century came at a time when the dominant form of economic organization was capitalism.

Capitalism. As noted in former chapters, the first stage of capitalism, often called commercial, or merchant, capitalism, had developed into laissez-faire capitalism during the Enlightenment. Accordingly, it was felt that the economy rested upon the profit motive, free competition in an open market, and the ownership of property in private hands. The basic urges and motives of men were thought to be the desire to acquire property, make money, and seek profit. It was further felt that if the market were kept open for free competition without government interference the money and price systems would automatically reach their "natural" levels through the operation of the laws of supply and demand. The aim was not so much to produce property as to *get* it, and it was assumed that the individual must be assured of the possibility of profit or the economic system would fail.

Now, with the emergence of power-driven machinery, a second stage of capitalism appeared, often called industrial capitalism. The adherents of capitalism still maintained the ideals of laissez-faire economy despite the changed conditions in the production of goods. The whole relationship of the capitalist and the workers underwent a most significant change. Under earlier commercial capitalism the merchant had been a middleman, or entrepreneur, whose wealth enabled him to buy raw materials and hand them to the worker, who owned his own tools and produced the goods in his own home or in small shops. Under this arrangement the laborer was still a skilled workman somewhat independent of the entrepreneur.

With the development of the factory system, however, the entrepreneur became the owner of the machines and of the tools, as well as the buyer and seller of goods. The former skilled worker left his small shop and moved into the factory, where the tasks of working at machines tended to reduce him to the unskilled level. Whereas the worker had formerly done a complete job of many operations in the manufacture of whole articles, he now gradually began to concentrate upon one or a few specialized operations in the larger task of producing standardized goods. Owning no tools, the workers were now more than ever dependent upon the factory owner for their wages and their jobs. They soon turned to labor organizations as a means of protecting themselves against exploitation and of achieving better working conditions and wages. The modern labor movement arose as a protest and a reaction against the working conditions of industrial capitalism.

Major Social Programs of Action

In response to the four major patterns of social organization described above, there were many proposals for plans of action to alleviate the conditions produced by the interaction of these patterns upon one another. The three most important types of programs, which appeared in different forms in different countries, may be identified as follows: conservatism, constitutionalism, and socialism.

Conservatism. In general, conservatism was an attitude of mind that stressed the necessity of social stability and therefore expressed a great fear of change and novelty. Reacting against the French revolutionary ideals, the conservative ideal was perhaps stated most effectively by Edmund Burke in England. If possible, change should be reduced to a minimum; whenever change is absolutely necessary, it should be undertaken with all possible regard for tradition, for the rights of property, and for the individual. All change was viewed as invalid if it did injustice to individuals; the greater freedom given to individuals, the better for society.

The conservative, however, was thinking of the individual as the man of property, for he denied the revolutionary conception of equality, preferred to trust the elite, and feared the masses as brutal, ignorant, and emotional. All change must be orderly and gradual, for anything that threatens order threatens all of society. In general, conservatism stressed the values favorable to capitalism, the religious tradition, and a nationalism that favored the interests of the aristocratic classes. It was consequently likely to discount and resist the demands of liberalism, for the people at large were deemed unable to discriminate and make wise decisions. The business of government should be left to the ruling classes—royalty, the aristocracy, the church, and capitalism.

Constitutionalism. Stemming from the forces of liberalism, constitutionalism included the desire for extension of the suffrage to an ever-widening proportion of the population. In some countries it took the form of a demand for a republican form of government, civil liberties, equality, and participation by the great majority of people in the government; in other countries it took the form of winning greater rights from the monarchy or ruling classes through more liberal constitutional arrangements. Constitutionalism won many victories throughout the nineteenth century and was reflected in the revolutions of the 1830's and 1840's on the Continent and in the reform movements in England. It relied on political reforms as the means of improving the economic and social welfare of the masses of the people.

Constitutionalism included the efforts of middle-class liberals, intellectuals, and many of the laboring classes, who joined together to attack the vested interests of the landed aristocracy, royalists, traditional churches, and wealthy industrialists. Constitutionalism felt that the ills of society could be removed by elevating the ideals of political liberalism, but it also often went hand in hand with nationalism in the interests of political self-determination for cultural nationalities. The belief was strongly held that the evils of industrialism and capitalism could be remedied by political means; in other words, give the people a vote, and they would cure the ills of society and with justice to all.

Socialism. After the middle of the nineteenth century, faith in constitutionalism began to weaken in some quarters, because of the failures of the various revolutions, and many more radical proposals began to appear, the most important of which took the form of socialism. The most complete formulation of the socialist outlook was made by Karl Marx and Friedrich Engels. Marxian Socialism insisted that there is an inherent and irreconcilable opposition between the interests of the capitalist, or bourgeois, class and those of the proletarian wage earners. Inasmuch as the state has always been the instrument by which the ruling classes maintain themselves in power and protect their vested interests, no ruling class will ever willingly give up its control of the coercive power of the state.

According to revolutionary Marxian Socialism, the property-owning classes will thus never give up their power by constitutional means, and therefore the working classes must seize power by revolutionary force and use it to improve the welfare of the masses of the people. No fundamental progress can be achieved until the profit system of capitalism is destroyed in favor of the social ownership of the means of production and distribution in a classless society. As soon as the present owning class can be liquidated, real communism can be instituted and the state

as known historically will not be needed, for there will be no class for the proletariat to exploit.

Many shades and types of socialism appeared in the nineteenth century, ranging from the moderate and gradualist doctrines of Christian Socialism, Utopian Socialism, and Fabianism in England to the revolutionary and extremist doctrines of Marxian Socialism. Socialism started with many of the assumptions of liberalism, but the extreme doctrines denied many of the liberal values. All socialists denied the validity of nationalism and capitalism as agencies of achieving the desirable industrial society.

Political Institutions

General developments. Soon after the opening of the nineteenth century Napoleon became the dominating figure in Europe, and France went from victory to victory in its wars against a variety of coalitions marshalled to stem the French tide. By the end of the first decade Napoleon dominated most of Europe west of Russia and Austria. Thus, Holland, Italy, Spain, the Confederation of the Rhine, the Duchy of Warsaw (Poland), Switzerland, and even Prussia were strongly bound to his imperial system. In 1806 after the Battle of Austerlitz, Napoleon forced Francis II of Austria to discard the title of the Holy Roman Empire, and thus the "First Reich" of Germany came to an official end.

At first the French armies were welcomed by many of the oppressed peoples of Europe as liberators and as bearers of the ideals of the French Revolution. In this respect the people were partly correct and partly mistaken: Napoleon preserved the revolutionary ideals of equality, but he abrogated the ideal of liberty. Wherever Napoleon went, he abolished feudalism and reformed the civil and criminal codes; but he did not believe in liberty or really republican and democratic forms of government. Napoleon ultimately in trying to conquer Russia met the same fate that Hitler's armies were to meet 130 years later. Napoleon's disastrous retreat from Moscow paved the way for eventual defeat at the Battle of Leipzig in 1813. After abdication and exile at Elba, Napoleon made one final effort to regain power, which ended in the Battle of Waterloo in 1815 and his final and permanent exile at St. Helena.

A conservative reaction set in throughout Europe after the final defeat of Napoleon, and the Congress of Vienna in 1815 undertook to re-establish the old regimes, compensate them for their losses to Napoleon, restore feudal privileges to the aristocratic classes, and destroy the liberal and republican gains that had been made. Austria, Prussia, England, and Russia dominated the peace conference at Vienna and continued their Quadruple Alliance, formed before the Battle of Waterloo, with the purpose now of suppressing any revolutionary movement that

might attempt to regain the losses of liberalism. Repressive and reactionary measures were taken in nearly every country to stamp out liberal thought and action, but revolutions later appeared nonetheless in Italy, Greece, and Spain as well as in France, Belgium, Holland, and Germany. Some gains were made by these revolutions of the 1830's and 1840's, but not as much was won as many liberals had hoped for.

After 1870 the political efforts of most large countries shifted from the effort to unify themselves internally as nations to the external exploits of imperialism. The Industrial Revolution led to the struggle for control of undeveloped countries. Africa was partitioned in a decade, after 1880, by the nations of Europe, and China was divided into spheres of European influence. Britain acquired control over Egypt and various parts of Africa, Asia, and China; France gained Algeria, Tunis, Morocco, and Indo-China; Italy failed in its attempts to conquer Abyssinia but did gain Eritrea, Somaliland, and Libya; Germany entered the race for colonies later than the others but gained colonies in Eastern and South-West Africa and made efforts in Asia. In the Far East Japan was opened up to Western trade and began to create an efficient army and navy.

As the rivalries heightened in Europe and in the world, the lines of battle began to form that were eventually to lead to the First World War. Germany, Austria, and Italy formed secret agreements that resulted in the Triple Alliance, and thereupon France, England, and Russia were gradually thrown together to offset this bloc in central Europe. England gave up its long rivalry with France as it became clear that the rise of German power was the greatest threat to security for England. After the beginning of the twentieth century the course of events moved rapidly to the catastrophe that engulfed most of the world in the war of 1914 to 1918.

France. As ruler of France Napoleon secured to the nation a large measure of order, efficiency, and even equality before the law, but he did not allow democracy. His principal desire was to strengthen the centralized power of the state and to weld France into a unified whole. One step in this direction had been taken before he became emperor when he reached his agreement with the Catholic Church. According to the Concordat of 1801 the church was restored to a privileged position in France; Napoleon was to appoint the bishops, who in turn could appoint their priests, and all were to receive salaries paid by the government. Napoleon, however, refused to return the lands of the church confiscated by the Republic and refused to designate the Catholic Church as the only recognized religion in France, thus preserving some measure of religious liberty.

After the defeat of Napoleon, the Congress of Vienna supported the

restoration of the Bourbon dynasty in France, and Louis XVIII and Charles X ruled from 1814 to 1830. The Bourbon restoration meant that conservative and reactionary forces were built up again. Efforts were made to stifle the press, revise the election laws so that conservatives could dominate the government, and even indemnify the nobility for their lost lands. All these measures irritated the middle classes and working classes, who joined together to overthrow the Bourbons in the July revolution of 1830 and establish a constitutional monarchy. The radicals had wanted to restore the Republic, but the middle classes won, and Louis Philippe, of the Orléans branch of the royal family, was brought in and ruled as king from 1830 to 1848.

As Louis Philippe drifted toward autocracy, many discontented groups appeared—the monarchists, who wanted the Bourbons again restored; the Clericals, who wanted greater church control; the Bonapartists, who wanted Napoleon's empire restored; the Republicans; and the Socialists. The Republicans and Socialists joined together in another revolution, overthrew Louis Philippe, and established the Second Republic in 1848, drawing up a constitution guaranteeing freedom of speech, petition, press, and assembly; manhood suffrage; security from arbitrary arrest; and a president elected by all the people. As a compromise, Louis Napoleon, the nephew of Napoleon, was elected president. However, he soon began to emulate his more illustrious relative and set up the Second Empire, which lasted from 1852 to 1871. When he became embroiled in the disastrous Franco-Prussian War of 1870 to 1871 and lost, the Third Republic was established. Although the Third Republic found it hard to survive, by the end of the century the Republicans and Socialists had gained control over the monarchists and Clericals. In general, the Third Republic was directed by the middle-class groups, who often gained support from the Socialists. The Chamber of Deputies was elected by universal manhood suffrage; the Senate was elected by special electoral colleges; and the real executive power rested in a cabinet responsible to the deputies. Thus, the deputies became a democratic agency, the Senate an aristocratic agency, and the president served in much the same capacity as the king in England.

England. Many groups in England had been shocked by the excesses of the French Revolution, and conservatism dominated English political affairs in the first decades of the century. The period after 1815 saw the suspension of habeas corpus and the passage of repressive acts after riots caused by unemployment and depressions. The Tories, however, gradually lost control in the rise to power of the Whigs, supported by workers as well as middle classes. The Whig efforts finally resulted in the reform bills of the 1830's. The Reform Act of 1832 extended the suffrage in ways that particularly benefited the middle classes in the city districts.

Criminal codes were liberalized; Catholics were given greater toleration; slavery was abolished in the colonies; factory acts tried to remedy the worst conditions of the industrial regions; and poor relief was improved.

The working classes had helped in enacting the Reform Act of 1832; but it had not materially increased their voting powers, and they therefore agitated for further reforms in the so-called "Chartist movement" of the 1830's and 1840's. They demanded universal manhood suffrage, secret ballots, equal electoral districts, and annual parliaments. The movement as such had declined by the 1850's because of the prosperity inaugurated by the Industrial Revolution, but by 1865 such demands could no longer be completely ignored by the major political parties. The Liberal party (formerly Whig) under William E. Gladstone and the Conservative party (formerly Tory) under Benjamin Disraeli both began to accede to the movement for parliamentary reform. Reform bills in 1867, 1884, and 1885 added millions of new voters to the rolls and did much to equalize voting districts and to make Parliament more nearly representative of all the people.

Meanwhile, organized labor gained momentum, and labor unions were declared legal in 1871. Despite this, the working classes did not feel that they were gaining sufficient headway; they therefore turned to the organization of political parties. The Independent Labor party was formed in 1893. With the help of the Social Democratic Federation (Marxian Socialism) and the Fabian Society (Gradualist Socialism), the political power of labor increased in England. In general, the extension of constitutional and liberal reform took place gradually and peacefully in England.

Germany. Following the defeat by Napoleon of the Prussian army at the Battle of Jena in 1806, there were signs that Prussia might travel along liberal lines. Urged on by such men as the philosopher Fichte and the statesman Stein great efforts were made to unite the German people and regenerate their spirit by linking the ideals of nationalism with liberalism. Fichte preached that class distinctions should be wiped out and that all Germans should unite in a strong national state that would coincide with cultural nationality. The liberal aspect of the movement, however, soon gave way to the reactionary nationalist spirit after the Congress of Vienna in 1815. Repressive decrees were issued, and the liberals were hunted down and silenced. The liberal movement had a resurgence in 1848 at the Assembly of Frankfort but soon collapsed again.

Nationalistic unification of Germany proceeded under the Prussian kings, Frederick William III, Frederick William IV, William I, and William II. By 1815 the 300 German states had been reduced to less than 40, as the larger states expanded at the expense of the smaller.

Gradually, Prussia came to control the northern German states, and Austria the southern German states. Then, through the diplomatic skill of Bismarck as chancellor for William I of Prussia, the German states were ready to unite to challenge Louis Napoleon in 1870. After the defeat of France, Bismarck succeeded in gaining control of the southern German states, and William I was crowned emperor of Germany. The "Second Reich" was launched. The German Empire was made up of 25 German states, ruled by the emperor, a *Bundesrat* of 58 members appointed by the states, and a *Reichstag* elected by the people, all actually dominated by Prussia.

For almost 30 years from 1862 to 1890 Bismarck was engaged in consolidating the power of the emperor and of Prussia by playing one group in Germany against the other until none was strong enough to compete with him, a technique also successfully used by Hitler. The principal political parties were the Conservatives (upper-class aristocracy), Progressive Liberals (working classes), Center party (Catholics), and National Liberals (middle classes). Bismarck allied himself at first with the National Liberals, opened up free trade, promised suffrage reforms, and attacked the Catholic Church in his famous *Kulturkampf*. As soon as he could, however, he deserted the National Liberals and allied himself with the Conservatives and Center party.

The occasion of this shift was the growth of the Social Democratic labor party organized in 1875 to represent the laboring classes. He rallied all the conservative elements to block the threat of the Social Democrats; he hunted down the Socialists and tried to wipe them out by repressive measures. At the same time he stole their thunder by supporting social-security laws that would pacify the working classes by giving them accident compensation, pensions, and old-age and sickness insurance. Social gains had been achieved by a paternalistic government that wanted to maintain class distinctions by giving in only where it had to.

Austria. With the end of the Holy Roman Empire in 1806, the remnants became the Austrian Empire, which, however, remained a powerful state. Under the leadership of Prince Metternich Austria took a leading role in the reactionary movements following the Congress of Vienna. As Prussia gained greater power in northern Germany, the Austrian Empire was expanded into the Austro-Hungarian Empire in 1867. In this arrangement the Magyars of Hungary ruled their half of the empire from Budapest, the Germans ruled their half from Vienna, the emperor and a joint parliament nominally ruling both. In both parts of the empire the Slavic peoples were still submerged.

Italy. Meanwhile, demands for unification were raised in Italy. The Congress of Vienna set out to suppress the liberal and nationalistic ideals

of Italians fostered by Napoleon. The former rulers were restored in the several Italian states, but a secret society known as the *Carbonari* kept agitating against Austria in the 1820's, until finally the main effort at revolution took place in 1848 under the leadership of Mazzini. Revolts in Naples, Venice, Milan, Florence, and Rome met with little success; only Sardinia was able to maintain a liberal government under Victor Emmanuel II. Then, under the astute and able statesmanship of Count Cavour as prime minister under Victor Emmanuel, Sardinia became the spearhead of the movement for the unification of Italy. Cavour gained the support of the republican followers of Mazzini, obtained the help of Louis Napoleon to fight Austria, and eventually united most of Italy by joining forces with Garibaldi. The kingdom of Italy was proclaimed in 1861 with Victor Emmanuel as king, and the rest of Italy was brought in when Rome became the capital in 1871.

Russia. Despite some sporadic reforms attempted by Alexander I, the general situation in Russia until the middle of the century was far behind that of most of the other nations of Europe. Liberal ideas, however, were being spread by secret societies and publications of many kinds. One of the principal objects of the reform movements was the abolition of serfdom. When Nicholas I became embroiled in the disastrous Crimean War, the peasants became still more dissatisfied and several insurrections broke out. Alexander II abolished serfdom in 1861 and also tried to give greater political freedom through local governments in which popular election, trial by juries, freedom of the press, and schools were instituted. These local arrangements, however, did not work out well because the people had no democratic traditions and the Czar's agents interfered overmuch. Therefore, Alexander II withdrew many of the local liberties, especially after the unsuccessful insurrection of the Poles, who tried to gain independence in 1863.

The hopes of liberal reformers being thus dashed, many of the younger Russians turned to the anarchism of Mikhail Aleksandrovich Bakunin. Others turned to terrorism in order to bring the officials to their senses by violence. Frightened by waves of assassinations, Alexander II was at the point of granting constitutional reforms when he himself was assassinated. Alexander III set about to enforce repressive measures even more rigidly after his accession and vigorously persecuted the Poles, Jews, Finns, and other recalcitrant groups. Meanwhile, the Social Revolutionists gained some headway among the peasants, and the Social Democrats propagandized for labor unions. Under Nicholas II, who took power in 1894, the groundwork was being laid for the Russian Revolution of 1917. Gradual reform had been too slow in Russia.

Economic and Social Institutions

The advance of liberalism and political democracy did not solve the problems of the nineteenth century, for the Industrial Revolution brought so many new and unforeseen problems with it that eighteenth-century formulas for political democracy no longer fully applied. The Industrial Revolution had profound effects upon nearly all the institutional and personal elements of life.

Mass methods meant that enough food and clothing and other necessities could be produced to support a greatly increased population. New techniques in agriculture made it possible for more food to be produced, by improving the fertility of the soil through artificial fertilizers and by increasing the amount of soil that could be cultivated through farm machinery instead of hand methods. Fewer farmers could now produce more food. Likewise, more manufactured goods could be produced by using better and more efficient machines driven by water power and steam power. These goods could also be transported more quickly and to greater distances because of the development of railroads, steamships, and better roads and canals.

Industrialism meant further that city life rather than rural life was to become increasingly the typical pattern of social organization. At the beginning of the nineteenth century most people in all countries lived in rural areas; by the end of the nineteenth century most people in many of the industrialized nations lived in cities. The rapid growth of cities produced unbelievable overcrowding and slum conditions that were a menace to health and safety for thousands of workers in the factory towns. The people suffered so greatly that the winning of the freedom to vote did not seem enough compensation for the hardships they endured. The necessities of industrial mass production, moreover, required workers to engage in standardized job processes that gave little chance for creativeness or initiative; the long hours and bad working conditions tended to dull the spirit. When conditions became intolerable, people revolted, agitated for reform, or left their homes for new lands. Many came to America from virtually all countries of Europe.

Industrialism meant that the world was a different place to live in. It was no longer a number of isolated economic or political units that could go their ways separately from other nations. It gradually began to dawn upon people that what happened to any groups within a nation affected other groups and what happened to one nation affected other nations of the world. This factor of interdependence made the political and economic problems of the world more acute than ever. The demands for reform began to shift from the purely political to the social and economic. Within nations these conflicts took the form of struggles between capital and labor, between agriculture and industry, between

farm and city. Among nations the struggles led to the imperialistic wars that culminated in the twentieth century.

Labor movement. The most immediate social results of the Industrial Revolution seem to have been that the owners quickly amassed great reserves of wealth and the workers found their conditions of working and living growing worse. In reaction against this situation, the workers turned to group action and began to organize labor unions as a means of bargaining with employers for better conditions, shorter hours, and higher wages. Many repressive laws and measures were enacted to suppress the unions, but gradually they won the legal right to existence; in England by 1871, in France by 1884, and in Germany after 1890. A second phase of the labor movement was the recourse to political action; labor groups formed political parties in order to win economic adjustments by working for social legislation within the constitutional framework. These were represented by the Social Democratic and Labor parties of France, England, Germany, and many other countries, which in general embraced the philosophy of gradual socialism.

Three other movements call for mention: consumer cooperation (non-political, peaceful, and gradualist), syndicalism, and communism (called bolshevism, 1903 to 1918), the latter two mutually hostile, but both directed against the state. Cooperation began in 1843 at Rochdale, England, where a few weavers, thrown out of work after a lost strike, successfully launched a retail store. The movement grew and spread; it now has many millions of members, mostly in Great Britain, Belgium, Austria, Germany, Scandinavia, and Finland. Each member has one vote, regardless of his investment. Cooperative stores sell at current prices, and the middlemen's profit they save is divided among members in proportion to their purchases. Syndicalism, practically confined to southwestern Europe and Latin America, stemmed from Bakunist anarchism. It aims to abolish the state and seeks by strikes and sabotage to cripple capitalism and promote revolutionary spirit to a point where the workers, organized by industries, will seize the plants and operate them through their respective organizations, which will exchange products, without recognizing any higher authority. Unlike syndicalism, communism did not set out to destroy the state directly and immediately. It counted on a "resolute minority" to capture the state by force and preserve it by a dictatorship of the proletariat, under the control of a single self-perpetuating party, until such time as the state would no longer be necessary and would "wither away." Communism's strength centers in Russia, and it is weakest in English-speaking countries and Scandinavia.

The socialist groups gained adherents not only from the labor groups but also from intellectuals and professional classes, who had become sensitive to the dreadful conditions of life in the cities and factories of industrial society. The capitalist groups gained adherents from con-

servative religious groups and the middle and upper classes, who saw the socialist orientation as a threat to the welfare of the state as well as to themselves. In general, the socialist groups of many kinds were in favor of social reform but against militarism and imperialism, whereas the conservative groups favored nationalism and imperialism as a means of extending and protecting their interests.

As these lines of economic interest were formed in the nineteenth century, the greatest issue of modern times was posed: Could democracy and constitutional government solve the problems of an industrial society? The conservatives said that traditional individualistic capitalism was essential to democracy; the liberals said that capitalism should be so reformed that economic and social democracy could become a part of political democracy; and the radicals said that true democracy could be achieved only when capitalism was rooted out of modern society. The groundwork was being laid for the struggles of the twentieth century among fascism, communism, and democracy. In these struggles the role of education became ever more important.

Religious Institutions

The power of the churches remained strong in the nineteenth century, gaining adherents as a reaction set in against the rationalism of the Enlightenment. The churches, however, had their troubles with the nationalistic governments in the various countries, especially in France, Germany, and Italy. In general, the established churches were likely to be conservative and to side with the absolutist parties against the new liberalism of the nineteenth century. In Russia the Greek Orthodox Church worked hand in hand with the czars and was the cause of much bitter resentment on the part of the Socialists and anarchists. The church was outraged by the preachings of the anarchists against matrimony as well as against established government. In England the Church of England was generally allied with the Tories (Conservatives), the aristocracy, and the wealthy, but the greater liberalism of England gave greater toleration to dissident churches than elsewhere; even the Roman Catholics gained headway after the Catholic Emancipation Act of 1829.

In France the Roman Catholic Church retained some of its privileges and remained the established state church as a result of Napoleon's Concordat of 1801. It maintained this position, gaining strength under the Bourbon restoration, losing ground under the Second Republic, regaining strength under the Second Empire, and finally losing its favored position under the Third Republic. The Clericals (the political party favorable to the church) often paired off with the royalists against the Republicans and Socialists of the Second and Third Republics, until finally the Third Republic became strong enough to pass the Association

Act of 1901, which provided that no religious order could exist without the approval of the government and no unauthorized order could teach in the schools. The last step was the Separation Act of 1905, which ended Napoleon's Concordat, abolished the state church, and required that within 10 years all teachers in state schools must be laymen.

In the German states and in the Austrian Empire the state churches flourished throughout most of the nineteenth century; the Roman Catholic Church remained the established church in Austria and the southern German states and the Lutheran Church in Prussia and other northern German states. Russia, Prussia, and Austria joined together following the Congress of Vienna in an apparently mystical attempt to establish the rule of religion on earth, but these allies were as much interested in maintaining the *status quo* of monarchy and aristocracy as in maintaining conservative religion. Austria signed a concordat with the Roman Catholic Church in 1850; and the Vatican Council in 1869 reaffirmed the supreme power and infallibility of the Pope.

With the beginning of the German Empire in 1871, Bismarck tried to woo the liberals of Prussia by suppressing the Roman Catholic Church, whose followers had organized the Center party in 1871. Preaching his *Kulturkampf* against any outside interference in the affairs of Germany and especially against the Roman Catholic Church, Bismarck severed diplomatic relations with the Pope, expelled the Jesuits in 1872, required state approval for the appointment of Roman Catholic priests, and insisted that only native Germans who had been educated in Germany could become Roman Catholic bishops. A large majority of Roman Catholic bishops were put into prison or driven into exile, but the Center party continued to gain strength. Bismarck therefore executed an about-face, accepted their support along with that of the conservatives, and turned his attention to suppressing the Socialists.

In Italy the Pope, long opposed to nationalism and liberalism because of their secularizing tendencies, looked with especial alarm upon the unification of Italy undertaken by Mazzini, Cavour, and Garibaldi. When the kingdom of Italy was established in 1861, the Papal States of Rome and Venetia were not included. Some of the reformers wished to capture Rome without the Pope's consent, but others felt that this step should not be taken against the wishes of the Pope and Louis Napoleon of France. Therefore, nothing further was done until the Franco-Prussian War, when Louis Napoleon withdrew his support of the Pope. Thereupon, with the approval of Bismarck, Victor Emmanuel conquered the Papal States, and an overwhelming majority of the people voted to become a part of the kingdom of Italy. Despite this attitude of the people, the Pope refused to recognize the kingdom of Italy and retired to the Vatican, announcing himself to be a political prisoner. The

Italian government gained Rome as its capital and recognized the Pope as representing a sovereign foreign state within the Vatican. The Pope maintained the theory that he was a prisoner until 1929, when a treaty and agreement were signed with Mussolini by which the Pope finally recognized the kingdom of Italy and in return the Roman Catholic Church was recognized as the state church of Italy.

The role of the Protestant churches in society was marked by a renewed religious fervor and evangelism as a reaction against the intellectualism of the Enlightenment. This in turn led to a marked philanthropic effort to relieve the suffering of the poor and underprivileged in the newly industrialized cities and to extend the opportunities of free or charity education to the children of the poor. The reaffirmation of religious faith led to a splitting and dividing process among Protestant churches that resulted in many new religious sects. Whereas there had been relatively few sects in the eighteenth century, several scores of identifiable groups had appeared by the end of the nineteenth century. Many missionary societies were formed to carry the gospel to all sections of the world. Throughout the nineteenth century the relations of the state and church in all European countries were crucial in respect to the support and control of education.

THE IDEAS MEN LIVED BY

Conflicts between Idealism, Evolution, and Religion

Among the general intellectual trends of the nineteenth century, two or three main currents may be mentioned as particularly relevant for understanding educational outlooks and methods. In the first half of the nineteenth century the dominant intellectual outlook came to be known as absolute idealism. Stemming from the work of such German philosophers as Kant, Fichte, Schelling, Schleiermacher, and Hegel, idealism represented a reaction against the scientific rationalism of the eighteenth-century Enlightenment. In general, idealism elevated the claims of human feeling, emotions, and mystical faith in much the same way as the Enlightenment had elevated the rational approach to the world and to man. The effort of idealism was primarily to build a complete system of thought that would reintegrate man and nature and God into a great unity expressed by the term "absolute." This outlook generally tended to reinforce the religious temper against the scientific outlook that was becoming so important.

Of all the many tremendous scientific gains of the nineteenth century, the development of the conception of evolution was perhaps the most important and the most revolutionary in its whole impact upon the outlook of men. Stemming from the work of Linnaeus, Erasmus Darwin,

Malthus, Lyell, Lamarck, and, above all, Charles Darwin, the evolutionary concept was elaborated not only as a specific biological explanation of the origin of life on this earth but also as a general interpretation of the development of man and his social institutions. As Darwin was foremost in the biological explanations, so were Herbert Spencer and Thomas Huxley preeminent in popularizing the broader applications of the doctrine of evolution. Consequently, they soon came into violent conflict with the established and traditional beliefs about the origin of the world and of man. Backed by scientific investigations in many other fields of knowledge, evolution and science challenged together the supremacy of religious and idealistic thought in the latter half of the nineteenth century. Despite a reassertion of idealism late in the century in England by Thomas Hill Green, Francis Herbert Bradley, and Bernard Bosanquet, the forces of science, evolution, and realism were emerging stronger than ever.

Sometimes the conflict of evolution and religion resulted in the attempt to reconcile the two, as in the case of the religious modernists, but it also sometimes meant an out-and-out attack on orthodox religious beliefs. Leaders in the antireligious movement were Spencer and Huxley in England, Clemenceau in France, and Haeckel in Germany. They were not only active in speaking and writing, but they also formed societies to promulgate their ideas. The Rationalist Press Association was founded in England, and the International Freethinkers League was organized in 1880.

The religious forces, of course, were not without their resources, and they quickly rose to do battle. One defense was the movement known as Christian Evidences, based on Butler's *Analogy of Natural and Revealed Religion* and Paley's *Natural Theology*. Their principal argument was that the existence of God is proved and demonstrated by the revelations of natural science. The wonderful adjustments of natural phenomena, they held, require the belief that nature has been designed by God and cannot be the result of accident or natural laws. In France the most effective defender of religion and Catholicism was Chateaubriand. In England notable defenses were made by the members of the Oxford movement, who denounced science and defended the faith. Of these John Henry Newman, who became a convert to Roman Catholicism and was made a cardinal of the church, was outstanding.

World View and Human Nature

The conflicting conceptions of the origin and nature of the universe and of the world took two major forms: the religious conflict between religion and evolution; and the philosophical conflict between absolute idealism and realism (positivism).

Religion versus evolution. The fundamentalists in Protestantism held to the literal interpretation of the Bible that the world and all organic life has been specially created by God at a certain time in the past and that the species of living things have not changed but have remained the same throughout time. For evidence they pointed to the description of creation in the Scriptures, which were divinely inspired and therefore could not be doubted. Attacks upon the fundamentalist position took two principal forms. The first was based on a growing scientific and historical study of the origins of the Bible. As a result, it was pointed out that the Bible was written over a period of hundreds of years by a number of different human beings who had no special divine inspiration but who wrote down various stories and events, the Bible stories thus having been produced much as any great literature is produced. Students of Biblical criticism and of comparative religions maintained that the doctrine of special creation was evolved by men in ancient times who did not have the advantage of the scientific knowledge now available. As this point of view gained headway, it was easier for the doctrine of evolution to gain adherents.

The second form of attack upon fundamentalist religion was based, of course, on the evolutionary conception of the nature of life. Evolution maintained that during aeons of time the various species of life changed gradually from simple to more complex forms and that no species is fixed or changeless. In the natural process by which the individual organism interacted with its physical and social environments the various forms of life have appeared, of which the most complex is man. From the evidence of science and history it was maintained that the earth and man are much older than had ever before been realized, that all species of life are branches of a common trunk of living things, and that species change from natural causes rather than as a result of a divine act of special creation.

Influenced by the sociological and population theories of Malthus, Darwin took them to mean that survival of the fittest and natural selection played a part in evolution and he emphasized these factors as explanations of the way in which living species change. Evolution also drew upon geology and paleontology to show that the earth is two to four billion years old and that fossil remains of earlier times reveal a much simpler structure than more recent organisms. It also drew upon physiology, morphology, and chemistry to show that there is an essential likeness and continuity between the bodily structures and physiological processes of various types of animals and of man. Thus, the conception of change became enormously important not only in the biological field but in the fields of truth and knowledge of all kinds.

If change is an inherent part of the whole process of natural and

human development, many began to argue, change is also an essential characteristic of social institutions. This meant that social institutions not only *can* be changed (as the Enlightenment humanitarians desired) but that social institutions *must* change because of the very nature of life and society. This application to society of the evolutionary conceptions of change stimulated optimism and hope in respect to social as well as human progress; it stimulated secularism because it focused attention upon life here and now rather than upon immortality; and it stimulated the desire to study scientifically all aspects of human life with as much care, precision, and accuracy as had gone into the study of biology. Evolution thus gave great stimulus to the philosophic and scientific approach of realism.

Idealism versus realism. The conflict between idealism and realism was a continuation of the older controversies over the nature of the universe, but it took on new forms in the nineteenth century. It was the old battle between those who emphasized the existence of ideas and mental forms and those who emphasized the external world of nature and material things as reality. Greek idealism had said that ideas are the supreme reality and that the objects of nature are simply passing fancies. Descartes had said that there are two realms equally real, one of mind and one of matter. Now, absolute idealism of the early nineteenth century tried to join mind and matter into a unity that made ideas and thought not only the supreme focus of individual attention but also the very structure of the universe itself. To achieve such unity the idealists relied greatly upon faith, emotion, and mystical feeling to arrive at their conclusions. The towering philosophers of this outlook are Fichte, Schelling, and Hegel.

Whereas Kant had said that the individual mind must order its experience if it is to achieve knowledge, Fichte began to say that this is the process by which a universal mind, or Absolute, orders all the events of the world, nature, man, and social institutions. Hence, all experience takes place because the Absolute is experiencing and realizing itself. The objective world of nature is simply an expression of the Absolute mind, and all human beings act as they do because they are a part of this universal process. From all time the Absolute has been in the process of working out the relationships of man and nature, and in a sense this has been an evolutionary process.

God was viewed by idealism, not as a creator outside and beyond what he creates, but rather as the creative intelligence or spirit within the whole process of physical and social development. Because the Absolute exists in everything, everything is shaped by a moral purpose. The highest manifestations of the Absolute are in man. Each man is an expression of the moral and spiritual qualities of the Absolute; there-

fore, as individual men work together in a common social and moral life, they express the unified moral purposes of the Absolute. Individual men can be good only as they cooperate actively in the processes of social institutions. Fichte's patriotic fervor after the defeat of Napoleon made his philosophy a groundwork element in the development of German nationalism. As individual Germans worked together to create a German nation, he urged, they were at the same time helping to express the Absolute's will on earth.

This philosophy of idealism was carried to its ultimate conclusions by Hegel, whose philosophy of history further helped to build up a theoretical justification for German nationalism. Beginning in the relatively subjective and disorganized mentality of individuals the Absolute has been unfolding itself for centuries through the various stages of social institutions until it was finally being realized in its highest form in the Prussian state of Hegel's day. The basic social and moral process always goes through the three phases of thesis, antithesis, and synthesis. This view represents Hegel's dialectical method, some elements of which Marx relied upon in formulating his theory that every economic system generates its own opposite and thus contains the seeds of its own destruction.

In contrast to the metaphysical and mystical formulations of idealism, the philosophy of realism was reasserted with great strength in the nineteenth century. Turning its eyes away from the attempt to construct great systems of ideal perfection and absolute authority, realism oriented itself by the findings of natural science and the objectivity of the external world. It discounted the unity of all things and the reliance upon a supreme moral authority; reality exists not in the ideas and will of a theoretical spiritual being but in the natural laws of the objective world. The facts and things and relationships of experience are real and exist independently of moral law and human minds.

This approach to science was formulated into a philosophical system called positivism by August Comte in the middle of the nineteenth century. Comte described three stages through which philosophy had gone, (1) the theological stage, in which the divine and supernatural were appealed to as explanations of natural phenomena; (2) the metaphysical stage, in which philosophers tried to build up complete systems in such abstract entities as substance, form, and Absolute in order to explain nature; and (3) the positive stage, in which science and scientific method were the agencies used to arrive at empirical explanations of nature.

In general, the effort of the realists was to build up a conception of a world of nature that was orderly, systematic, and knowable through the investigations of science and that did not need to rely upon spiritual

or supernatural explanations of a religious or mystical kind. John Stuart Mill, Spencer, and Huxley made great efforts to spread this realistic view of the universe. The underlying assumption of Mill, for example, was a fixed reality in which physical things obey assured and uniform laws, acting in a predictable manner based upon the universal law of causation. He postulated a world of physical reality characterized by complete regularity of action. As idealism was likely to appeal to the religious and emotional temper, so did positivism and realism appeal to the secular temper of the times and attempt to incorporate science into philosophy.

Human nature. The basic quarrel between idealism and realism expressed itself in conflicting conceptions, not only of the universe and nature, but of human nature as well. Religion emphasized the mental, moral, and intellectual aspects of human nature as expressions of the divine spirit on earth. Man was viewed as a distinct being separated by an impassable gulf from the rest of nature because of his moral and intellectual qualities. This idealization of human nature often lost any religious connotation and branched out into a romantic and mystical glorification of the individual, especially exalting his emotions and feelings rather than his intellect as the guide to conduct. The realists most often borrowed from science and evolution the description of man as continuous with nature but as the highest and most complicated form of natural life; man developed his superior qualities of mind and conscience within the natural processes of evolution. Positivism led to the scientific study of human nature and the formulation of natural laws of human behavior to explain human conduct, on a par with scientific explanations of nature, the universe, and social institutions. The application of scientific methods of study to human nature was the principal effect of realism upon educational method in the nineteenth century.

Scientists began to study human physiology, the nervous system, the processes of sensation and perception, the physiology of the senses, and the laws of heredity and genetics and undertook experimental investigations of the mental processes. In this effort the work of Gall, Weber, Fechner, Galton, Spencer, and Wundt was especially important. They began to operate on Mill's assumptions concerning the laws of the moral sciences. If we know all about a person, they felt, we can predict his conduct as certainly as we can predict physical events. We can build up a science of human nature in which there is no doubt that human thought, feelings, and actions work on the causal principle. The laws of the mind are general and universal laws that can be discovered by observation and experimentation much as the laws of nature may be discovered by scientific investigation. From this kind of scientific psychology the laws of the formation of human character can be deduced.

If we know how the mind works, then we have a ready-made structure upon which to hang our educational techniques. The naturalistic conception of man soon led to investigations that were to revolutionize the traditional conceptions of human learning and intelligence. This meant eventually a revolution in educational methods.

Learning and Intelligence

The dominating conceptions of the nature of knowledge and the learning process were approached as in the past from two major points of view, rationalism and empiricism. The rationalistic approach in general was sympathetic to the idealistic and religious temper of thought, and the empirical approach leaned upon scientific investigation for its evidence. In general, the rationalistic belief held to the traditional outlook stemming from Aristotle and St. Thomas Aquinas that the human mind is a separate mental and spiritual faculty that has the power to reach out and grasp the universal and necessary principles of ultimate truth. Cardinal Newman maintained this intellectualistic conception of knowledge and learning in the face of scientific knowledge, which he definitely placed in a lower position on the scale of intellectual virtues. This position has been described at length in previous chapters.

The empirical approach to knowledge and learning took several forms. John Stuart Mill argued that universal and necessary truths can be built up by experience through inductive methods. Mill was just as convinced as the rationalists were that permanent and necessary truth exists, but he differed from them in insisting that such truths are revealed, not by an intellectual faculty of reason, but by the empirical processes of scientific and inductive methods. He provided the theoretical basis upon which much of the framework of a scientific philosophy and psychology was constructed in the nineteenth century.

Building upon a realistic conception of the external world and upon an empirical conception of the nature of knowledge, the most prominent psychology of learning of the middle of the nineteenth century, known as associationism, denied the validity of the faculty psychology and attempted to reduce all mental processes to the process of association. According to this view, whose famous exponents were Mill and Herbart, the mind and consciousness are formed by the process in which simple perceptions of external objects became associated in the individual with other perceptions to produce more complex perceptions and ideas. As these perceptions and ideas became associated in many combinations, an "apperceptive mass" of experience is built up in the individual and constitutes the structure of his mind. When two ideas become linked in experience, a later stimulus from external causes will recall not only the original idea but also the one that has become associated with it.

The mind was thought to be a center in which ideas and perceptions constantly compete for recognition in the apperceptive mass. The mind develops as the perceptions become elaborated into ideas or conceptions or meanings. Perceptions do not remain in consciousness but are pushed back into the unconscious, where they are stored until called out by new perceptions or experiences. The more frequent, recent, or vivid the associations are, the more easily can an idea be called out of the unconscious into consciousness. The modern laws of learning related to frequency and recency as expressed by scientific psychology in the twentieth century are foreshadowed in these introspective theories of associationism.

Another form that the application of empirical methods to learning took is the development of experimental psychology in the later nineteenth century. Psychology came to be looked upon as a scientific analysis of consciousness in which controlled experiment could produce quantitative results that would predict human behavior and learning. Many scientists began to insist that psychology and study of the mind must be based upon physiology; therefore, psychologists turned to a study of the physiology of the senses. They investigated the sensory and motor nerves; they measured the speed of nerve impulses; they studied how the eye, ear, and speech organs work; and they tested the pressures necessary to cause sensations on the skin and in the tactile senses.

Above all, the experimental methods of scientific psychology as an aid to the analysis of the structure of sense perception and consciousness were developed by Wilhelm Max Wundt in his laboratory at Leipzig. Wundt had much influence upon the development of scientific psychology in America. The tests of sensory discrimination conducted by Galton also gave an impetus to the notion of individual differences and the development of intelligence testing. Binet criticized these earlier tests because they relied too much on physical properties; he therefore set out to devise tests for such higher and more complex mental processes as will, memory, imagery, and association. His influence was even more marked in the field of intelligence testing, which developed to so great an extent in the United States in the twentieth century. As these empirical and scientific methods began to become established in the study of human learning and intelligence, the ground was being laid for the frontal attacks upon rationalism and faculty psychology that marked educational controversies of the twentieth century in the United States.

Social Role of the Arts and Sciences

It may be said that the fields of scholarly and creative endeavor revealed somewhat the same contrast in outlooks that marked the fundamental views of the world and human nature. Somewhat akin to the

idealist outlook in philosophy was the romanticism expressed in European literature, art, and music; and somewhat akin to the realistic outlook in philosophy were the developments in the sciences and social sciences. Harking back to the ideals of adventure and sentiment of the medieval romance for much of its inspiration, romanticism broke away from the classic emphasis upon simplicity, orderliness, clarity, and unity. Romanticism dealt in the strange, the subjective, the emotional, and the mysterious, glorifying the individual, freedom, and nature.

In contrast, the realist approach caused scholars to settle down to the serious task of examining, measuring, observing, checking, and generalizing the data derived from study of the physical, natural, and social world. Detailed and accurate description became the ultimate goal of the positivist in the sciences and social sciences and of the realist in literature and art. In general, romanticism was in favor in the early part of the nineteenth century, and realism became ever more prominent in the latter part of the nineteenth century.

Literature. In the nineteenth century the vernacular literature of the world definitely came of age. Even some of the classicists came to admit that the period was a creative one in literature that could stand next to the classical and Renaissance periods, even though not as a rival. In England the period was especially prolific in both prose and poetry. A mere catalogue of a few names reveals the range and vitality of the creative expression: Shelley, Byron, Keats, Coleridge, Wordsworth, Blake, Southey, Tennyson, Browning, and Arnold among the poets; Scott, Austen, Hazlitt, Lamb, Dickens, Thackeray, Eliot, Meredith, Hardy, Stevenson, Carlyle, Macaulay, and Ruskin among the prose writers. In France need be mentioned only Hugo, Mérimée, Dumas the Elder and Younger, Balzac, Flaubert, Sainte-Beuve, Taine, and De Maupassant. In Germany Goethe towered above all others, along with Heine the romantic poet, Sudermann the dramatist, and Nietzsche the iconoclast. Russia produced Pushkin, Turgenev, Dostoevski, Tolstoy, and Chekhov, while the Scandinavian countries played their parts in the works of Hans Christian Andersen, Ibsen, and Strindberg. Such an enumeration may serve to remind the reader of the creativeness and originality that were being expressed in various literary and dramatic forms.

Science and mathematics. The great steps taken in the field of the sciences during the Enlightenment were increased during the nineteenth century. Mention has already been made of the enormous development of the biological sciences, culminating in the theories of evolution of Lyell, Darwin, and others. The study of the cellular structure of the animal and human organism, of heredity (Mendel, Weismann, and De Vries), pathology, embryology, and physiology kept pace, to say

nothing of bacteriology (Pasteur), vaccines (Jenner), anesthesia, the germ theory of disease (Koch), and antiseptic surgery (Lister) in the field of medicine. Geology (Lyell and Hutton), paleontology (Cuvier), and geography (Humboldt and Ritter) gave new interpretations of the structure of the earth and its various manifestations that helped to support the evolutionary conceptions. In mathematics and astronomy the development of non-Euclidean geometry revealed significant trends in the work of Lobachevski, Jacobi, Riemann, and Gauss. Practical work in astronomy was aided by the construction of improved telescopes and observatory equipment.

In physics the fundamental theories of heat, conservation of energy, and laws of thermodynamics were elaborated by Rumford, Joule, Helmholtz, and Kelvin; the laws of sound and light were developed by Maxwell, Hertz, and Bunsen; and the nature of electricity was probed by Galvani, Volta, Ampère, Ohm, and Faraday. In chemistry the atomic theory and periodic law of the elements were developed by Dalton, Gay-Lussac, and Mendelyev, and the formerly rigid lines between inorganic and organic existence began to be challenged by organic chemistry. The scientific investigations of human physiology and psychology have already been mentioned.

As a result of these great advances, science gained tremendous prestige and authority in the intellectual life of the world. The term "science" came to have at least three meanings. (1) It referred to the various bodies of organized knowledge, each with its own systematic and consistent statements of tested beliefs. (2) It came to mean a method for the discovery and refinement of experimental knowledge, relying upon careful observation, the formulation of hypotheses, the elaboration of consequences, and the testing and verifying of the hypotheses under controlled and measurable conditions. (3) It came to mean a whole philosophy, or world view, according to which events follow orderly procedures that can be discovered by the senses, measured accurately, and expressed in quantitative terms. In such a scientific world there were no events controlled from outside of the world of nature; the principle of continuity replaced the doctrine of dualism; and truth came to be looked upon as a relative rather than as an absolute means of guiding man to new and more valid conceptions of knowledge and action.

Building upon the organized knowledge thus achieved in various scientific fields and applying the scientific method to practical affairs, the progress of invention and technology was more rapid and extensive than ever before in human history. Again a mere catalogue must suffice to point the revolutionary effects of such technological developments as the following: Fulton's steamboat, Stephenson's steam locomotive, Morse's telegraph, photography, Bessemer's steel processes, Lenoir's gas engine,

Nobel's dynamite, Bell's telephone, Edison's phonograph and incandescent lamp, the automobile, the motion-picture projector, and Marconi's wireless telegraph. Revolutions were being wrought in transportation and communication that were to create one world as never before. New methods of producing goods by harnessing the power of coal, gas, oil, and electricity and new methods of producing and conserving food products by agricultural machines, refrigeration, and canning were creating a new kind of world. The improvement of the quality of life was being made possible by the control of disease through medicine, surgery, and knowledge of food values. Methods of making war were likewise taking terrible strides. In all these ways science was becoming an enormously important instrument for good or for evil in human affairs.

Social sciences. Stimulated by the great developments in science and by the efforts to achieve better social arrangements that grew out of the democratic movements of the nineteenth century, the study of human relationships took on a new importance. Positivism and realism led many scholars and writers to apply scientific methods to the study of society. For the first time, separate and distinct bodies of systematic knowledge in the social sciences were organized and differentiated from the traditional catch-all category of "philosophy" under which social institutions had been treated since ancient and medieval days. History, political science, economics, sociology, and anthropology appeared as distinct sciences.

Most of the history writing of the nineteenth century was strongly affected by the patriotic fervor that pervaded most countries, and many nationalistic histories of France, Germany, and England made their appearance. The effort was also made to write history with prime attention to accuracy and details that corresponded to the facts. A leader in this movement was Leopold von Ranke in Germany, followed by Stubbs, Oman, and Maitland in England and by Mignet, Seignobos, and Langlois in France. In economics such classical economists as Malthus, Ricardo, and James Mill defended capitalism by formulating the "natural laws" of economics, but by the end of the century definite efforts were made to apply new statistical and historical methods to the realm of economic affairs.

Political science was largely devoted to defining terms and classifying forms of government according to their structure and type, but notable efforts were made to arrive at accurate descriptions and valid generalizations concerning political arrangements in the works of Alexis de Tocqueville and James Bryce, both of whom took America as their object of study. Sociology was given form and status by the work of Saint-Simon, Comte, Spencer, Gumpłowicz, and many others, most of whom attempted to describe society as an organism analogous to the individual person.

Anthropology had not yet become a field of study comparable in scope with the other social sciences but confined itself largely to measuring human skeletons and describing the development of tools and implements that had been produced in the various stages of man's evolution.

The practice and theory of law were greatly affected by the Napoleonic code, which dominated the legal systems of the Continental nations. According to the dominant view of the nineteenth century, the law was the system of regulations issued by the rulers or governing authorities of the state, and the study of law was simply the analysis of the body of laws in force in any state at any given time and place. Gradually, however, the notion spread that law should not be divorced from the ethics and the customs of a people but should rather be considered as an outgrowth of the whole culture. Thus, the common law of England gave greater place to the decisions of jurists on the basis of equity and common sense. As this outlook spread, it became more necessary for students of jurisprudence to study the broader history and institutions of a nation as a means of arriving at a more solidly grounded evaluation of the law.

As a result of the scientific and cultural investigations in the social sciences, the secular trends in society were given a great impetus. Less and less was society considered to be subject to a divine or supernatural direction from above, but more and more the social good was derived from an estimate of the effects of social arrangements upon the lives and welfare of people. In this process the utilitarian outlook of Jeremy Bentham and John Stuart Mill had a great effect. Utilitarianism argued that the ethical good is to be determined by the greatest good of the greatest number of people. This, of course, came to mean that conceptions of morality and good might vary from time to time and from place to place. Evolution had a large place in this doctrine, and it soon came to be realized that a complete determination of social good would have to consider the whole complex of social institutions that bear on the welfare of a nation or society.

Art and music. Creative expression in the fine arts in the nineteenth century was perhaps overshadowed by the scientific, industrial, and technological advances. Except in France, the energies of men seemed to find expression in scientific investigation or in the building of a new industrial society rather than in devotion to the arts of painting and sculpture. France was easily the leader in painting. Following the romantic and dramatic themes of Delacroix, such painters as Rousseau, Corot, Millet, and Manet turned to the realistic and accurate portrayal of the details of nature, and Monet and Renoir painted landscapes with infinite regard for the portrayal of the exact tones of light and shade. The reaction of Cézanne against realism and impressionism laid the

groundwork for the development of the various modernist schools of the twentieth century. In sculpture Rodin led the field. In England Rossetti and William Morris urged that art and industrial design be more closely allied so as to wipe out the ugliness of modern civilization and restore art to a social role in life and culture.

The developments in nineteenth-century music, however, reached the peak of creative expression, unmatched in any other comparable period of time. One need only mention Beethoven, Mendelssohn, Schumann, Schubert, and Brahms in Germany; Berlioz, Franck, Saint-Saëns, and Massenet in France; and Borodin, Moussorgsky, Rubinstein, Tschai-kovsky, and Rimski-Korsakov in Russia to reveal the depth and range of achievement. Likewise, the opera took its place among the great music of the world through the work of Wagner, von Weber, Strauss, Verdi, Donizetti, Bizet, Mascagni, Leoncavallo, Rossini, and Gilbert and Sullivan. Piano, violin, and vocal music kept pace through the genius of Liszt, Chopin, Paganini, Schubert, Brahms, Schumann, and Franz. The power and sweep of nineteenth-century music were soon recognized so fully that it was not long before it became known as "classical" music and became the standard by which all other music was to be judged.

CHAPTER XV

EDUCATION IN NINETEENTH-CENTURY EUROPE

ORGANIZATION AND ADMINISTRATION OF EDUCATIONAL INSTITUTIONS

Organized educational systems in Europe reflected the conflicting elements in institutional life that struggled for power in the various countries. In general, the forces of nationalism, capitalism, conservatism, and religion tended to reinforce the aristocratic character of the inherited educational institutions, while the forces of liberalism, constitutionalism, and socialism tended to make education more democratic. The struggle took different forms in different countries. For our purpose, the trends in France, Germany, and England are the most important, for they are the countries that had most influence upon American educational thought and practice. The educational systems of other states in Europe represented variations in large part of the patterns of these three countries. The czars of Russia did little for education, and few gains were made in Italy outside of the Kingdom of Sardinia, which had been strongly influenced by Napoleon's French ideals. Therefore, France, Germany, and England will serve to illustrate the outstanding developments in European education during the nineteenth century.

Nationalism and Liberalism in French Education

The most significant trend in France in the nineteenth century was the building of a strongly centralized state system of education. During the French Revolution, France had attempted to establish a state system of schools in order to achieve a democratic national unity. When Napoleon came to power, he immediately strove to reinforce the national character of schools, but the effect of his efforts was to reduce the democratic gains that the Revolution had made. His Concordat of 1801 with the Roman Catholic Church was quickly followed by a law of 1802, which in general returned elementary schools to church control. Napoleon was favorably impressed with the work of the Institute of the Brothers of the Christian Schools; furthermore, he was really more interested in secondary education than in elementary education. It was through the secondary schools that he expected to train a loyal and efficient body of officials to help carry on his government.

Thus, the law of 1802 provided the framework for a state system of secondary schools under public control. Although private secondary schools were permitted to continue, the way was paved for the two most common types of public secondary schools, namely, the *lycée* for the larger towns and the *collège* for the smaller communes. The *lycée* became the standard secondary school of France, providing the preferred road to university study. It became typically a residential boarding school, received national funds for the construction of buildings and payment of teachers' salaries, catered to the aristocratic classes of society by charging fees, and maintained a highly classical and Humanistic course of study. The *collège* also gave preferment on the road to the higher faculties, but it received a greater share of support from the local community and therefore was often not so well endowed, physically or intellectually, as the *lycée*. Napoleon's law of 1802 also provided for the establishment of higher faculties of medicine, law, science, technology, theology, and other arts and sciences.

Napoleon's interest in a nationalistic system of education soon led to the law of 1806, issued after he became emperor and designed to bring all French education under his direct and personal control. The University of France was established as the supreme administrative organization to supervise all the public educational institutions of France. It was not a university in the usual American sense, but more nearly a centralized national department of education. A supreme master to be appointed by the emperor was the highest educational official. He received advice from a superior council of education made up of 26 or 30 members, also appointed by the emperor. The whole country was divided into 27 administrative subdivisions for education, known as academies; each academy was to be headed by a rector, advised by a council, and aided by inspectors, all appointed by the master. The purpose of this hierarchy of public officials was to bring all public schools closely under national surveillance, provide inspection of the schools, supervise the teachers, and examine the students. A superior normal school to train teachers for the *lycées* was also established in 1810. Despite changes and modifications the framework of French educational organization remained essentially as defined here until the end of the Second World War.

With the restoration of the Bourbon kings from 1814 to 1830 the generally reactionary measures of the kings were applied to education. The church was given much more of its former status in the schools, priests were appointed as principals and teachers in the public schools, and licensing of private teachers could be through bishops rather than through state authorities. In 1820 the title of superior master was changed to minister of public instruction. The trend in favor of the church was somewhat reversed under the constitutional monarchy estab-

lished by the July revolution of 1830. Under the leadership of Guizot as minister of public instruction, Victor Cousin was sent in 1831 to Prussia to report on the organization of German schools; and the law of 1833 was passed to provide the framework of French primary education.

The law of 1833 required each commune to establish a public primary school, pay the teachers, and provide the school building (usually as a dwelling for the teacher as well). Fees were to be charged those parents who could afford to pay, but poor children could attend free of charge. If the commune could not afford to provide a school, the state was authorized to give help. Private schools (most of which were religious schools) were permitted to continue in operation, but the teachers of these schools had to be certified by the mayor of the commune as well as by the church. Likewise, the religious emphasis was somewhat lessened in the public primary schools by requiring that a child could not be forced to receive any religious instruction which his parents did not wish him to have.

In addition, a new type of advanced education was provided by the authorization of "higher primary schools" in the principal towns and cities of the departments, the 90-odd legal and political subdivisions of France. The higher primary schools were designed to offer to the graduates of the primary schools a vocational preparation in commercial, agricultural, or industrial subjects appropriate to the region. Furthermore, a primary normal school was to be established in each department for the training of teachers who were to teach in the primary schools. Although primary education was not made free or compulsory, great progress had been made in providing a national and conservative type of education appropriate to a monarchy. In the late 1830's further progress was made in providing primary schools for girls, adult classes for boys beyond fourteen and for girls beyond twelve years of age, and infant schools for children of preschool age.

During the struggles to establish the Second Republic of 1848, it was apparent that an ardent democratic spirit motivated many of the primary teachers. They issued strongly democratic proposals to make primary education free, compulsory to age fourteen, and a liberalizing agency for greater opportunity among the common people. But as soon as the conservatives and monarchists gained the upper hand in the Republic, they set about to quash the liberal movement in education, especially through the law of 1850. The conservative and religious trend in this law was revealed when Louis Napoleon saw to it that bishops and church officials had a prominent place on the superior council and on the councils of the several academies.

It thus became easier for the clergy to teach in the public primary and secondary schools than had been the case under the July monarchy. The hierarchical system of state and local inspectors was reinforced and

elaborated, so that the means were provided of hunting down the liberal teachers, who were charged with instigating the Revolution of 1848. As soon as Louis Napoleon became emperor in 1852, the process of "liberal-hunting" was intensified, teachers were discharged and even exiled, private and religious schools were urged to compete with the public schools, and the normal schools were put under close surveillance to ensure that they did not become soil for the growth of liberal social or educational ideas.

However, with the overthrow of the Second Empire and the establishment of the Third Republic, the pendulum began to swing back to a more liberal and democratic trend. Through a series of laws in the 1880's promoted by Jules Ferry, minister of public instruction, the modern form of French education was realized. In 1881 fees were abolished in the primary schools, and in 1882 compulsory attendance was required between ages six and thirteen. In 1886 the superior council lost its religious character, and professional educators made up the majority of its members; and the Ministry of Public Instruction was given complete control over the details of curriculum, selection of textbooks, examination and appointment of teachers, and payment of all primary teachers' salaries.

Private, religious schools were more strictly supervised to ensure that the laws, spirit, and constitution of the Republic were not jeopardized. Furthermore, it was ruled that representatives of religious orders could not teach in the public schools and religious schools could not be authorized to act as public schools (as allowed in the law of 1850). Higher primary schools were encouraged and expanded to meet the needs for technical training as the industrialization of France proceeded rapidly; and secondary education for girls in their own *lycées* and *collèges* was fostered.

It is clear from this short survey that nationalism was a paramount factor in all French educational developments in the nineteenth century; conservative, aristocratic, and religious influences predominated under the Bourbon restoration, the July monarchy, and the Second Empire; and liberal, constitutional, and democratic elements were stressed in the early days of the Second Republic and progressively under the Third Republic after 1880. France believed that a strongly centralized system of state education was the road to national unity, no matter whether the controlling power was monarchy, empire, or republic. Despite the democratic trends in the latter part of the century under the Third Republic, the aristocratic conception was strong enough to preserve a two-track system of education, one track for the lower classes and one track for the upper classes.

Nationalism and Conservatism in German Education

France and Germany had much in common in their outlook and systems of education in the nineteenth century; indeed, they copied much from each other at various times. They both gave much attention to nationalizing their schools, the principal difference being that at the end of the century the liberal tendencies were winning in France whereas the conservative forces were winning in Germany. Both nations established state school systems that were essentially aristocratic in their conception and practice.

During the reign of Frederick William III from 1797 to 1840 the struggles between conservatism and liberalism were prominent in education. For ten or fifteen years after the defeat of Prussia by Napoleon in 1807, it looked as though liberalism might win. Prompted by such men as Stein, Fichte, Humboldt, and Süvern, the king allowed liberal ideas to be expressed as a means of regenerating Prussia and nationalizing Prussian education. These men felt that the best way to rejuvenate Prussia was to establish a democratic system of education of the "ladder" type in which every child would have an equal opportunity of climbing as far as his talents would enable him to go and thus to wipe out the class distinctions that divided Prussia socially.

For a while it looked as though educational reform might proceed parallel with the social reforms of 1807 to 1811, when serfdom was abolished, towns were made independent of feudal control, and peasants gained a large share in the ownership of land. Fichte was made head of the University of Berlin founded on liberal principles in 1809, and Humboldt was put in charge of Prussian education. Several teachers were sent to study Pestalozzian methods in Switzerland, and some of them came back to become heads of the public teacher-training schools and provincial departments of education. Elementary education in Prussia was on the way to becoming the most enlightened and advanced in the world, especially attracting the attention of French and American educators in the 1820's and 1830's.

The liberal trends were short-lived, however, and began to be nullified soon after the Congress of Vienna. His hand strengthened by the conservative reaction in Austria and Prussia, Frederick William III began to retreat from democratic conceptions and to reestablish religious and aristocratic control of education under his own supervision. The department of public instruction was shifted from the Department of Interior and made a branch of the Ministry of Religion, Education, and Public Health. The country was divided into provinces and subdivided into counties and local committees, each with a school board representing the

various religious groups in the community. School inspection was largely in the hands of local ministers or priests.

Pestalozzian ideas of the regeneration of society through education began to give way to the ideals of religious, disciplinary, and military obedience. Frederick William III valued education, not as an agency for regenerating society, but as a means of making the common people satisfied with their lot, happy in their appointed place, and loyal to the king. By 1830 the two-track system of education was firmly established, the elementary schools for the common people (*Volksschulen*) serving over 90 per cent of the population and the secondary schools for the upper classes serving less than 10 per cent. Likewise, the repressive Carlsbad decrees of 1819 tried to stamp out liberalism among the faculties and student bodies of the universities.

The generally conservative reaction in Prussia was continued under Frederick William IV, who set out to surpass even the other Prussian kings in his absolute control and assertion of divine right. Far from looking upon education as a means of social improvement, he viewed the schools as a means of counteracting unauthorized religious and political ideas. He rebuked the elementary school teachers of Prussia for their part in the revolutions of 1848 and charged that they had been instrumental in stirring up the people to such outrageous acts as requesting a constitution. His regulations of 1854 were designed to reemphasize obedient habits and proper respect for religion and the king. He especially concentrated on the teacher-training institutions as a means of carrying out these aims. Once again the attempt to liberalize German education had failed; but the strength of education had been recognized by the upper classes, and they were determined more than ever that the schools should be used for *their* purposes.

As soon as William I became emperor of the new "Second Reich" in 1871, he set out to use education as an instrument to unify the diverse elements in the new empire. Bismarck's *Kulturkampf* led to the school-inspection law of 1872, which was aimed to remove the control of school inspection from the clergy; but his abandonment of *Kulturkampf* soon left inspection still largely in church hands. The General School Regulations of 1872 recognized that the different religious groups in the German states that constituted the empire should not be driven out of the educational system but should be reconciled. Public schools should be constituted as Protestant, Roman Catholic, or Jewish, according to the dominant elements in the community. Where the community was divided, each kind of school should be maintained, or special instruction should be given by each of the different faiths. This conception of a public denominational school system in which the state maintained public schools for the benefit of the various religious groups produced many difficult problems.

Meanwhile, vocational and continuation schools became very popular in most German cities as a means of training skilled workers for the industrialization of Germany. More than any other nation the Germans sponsored this type of education through local institutions. The regulations of 1872 further recognized the need for an education beyond the elementary level, and an intermediate, or middle, school was proposed for the children of artisans, small merchants, and tradesmen who could go beyond the minimum of education but were not expected to have the advantages of the secondary school.

Following his accession as emperor, William II issued a decree to the teachers of the schools, telling them that their prime purpose was to combat the dangerous doctrines of socialism and communism. The schools should teach that religion and a paternal monarchy would give labor all it needed if it would reject all socialistic doctrines. Thus, at the end of the century education was a highly centralized national agency, designed to inculcate nationalistic and conservative ideals that would produce patriotic Germans, knowing their place, promptly and efficiently obedient to orders, and habitually loyal to king and fatherland. Hitler had much in the German educational tradition to build upon.

Conservatism and Liberalism in English Education

England's typical provision for elementary schools was through private, religious, and charitable associations, which raised funds by subscription and then established free charity schools for the poor who could not otherwise pay for the education of their children. It was long accepted that self-respecting parents would pay tuition for their children's education. The philanthropic measures begun in the eighteenth century were extended and redoubled in the early nineteenth century, largely as a result of the deplorable industrial conditions facing the working classes in the factory towns of England and Wales. Added to the sympathetic humanitarianism aroused by the Industrial Revolution were the religious sentiments stimulated by religious revivalism. There was also a desire to protect the vested interests of the upper classes against the unruly, ignorant, and undisciplined mob of workers now crowded into the unhealthy and congested cities.

Whereas the French Revolution had stimulated the liberals of France and Germany to propose national school systems for the benefit of the people, it stimulated the liberals of England to form charity organizations to help the underprivileged. Whereas the reaction against the French Revolution had led the conservatives of France and Germany to use their state school systems to keep the people in their place, it prompted the conservatives of England to form still more voluntary societies in order to provide a little education to make the people satisfied at small cost.

Any number of charitable agencies set out to furnish "ragged" schools for the poor and underprivileged, soup kitchens, orphan schools, reformatories, industrial schools, thrift brigades, and the like. Virtually all the religious denominations organized school societies to provide charity education. The most important agencies, however, concentrated on three types of schools: Sunday schools to give instruction to children who worked the rest of the week; monitorial schools to put education on a mass-production basis; and infant schools to provide a kind of nursery school education for three-, four-, and five-year-olds while their mothers worked in the factories.

In 1785 the Society for the Support and Encouragement of Sunday Schools in the Different Counties of England was founded. In 1808 the Royal Lancastrian Society for monitorial instruction was founded under nondenominational auspices, and in 1814 the name was changed to the British and Foreign School Society. In 1811 the National Society for Promoting the Education of the Poor in the Principles of the Established Church throughout England and Wales was organized to promote monitorial instruction under Anglican auspices. In 1836 the Home and Colonial Infant School Society was organized to promote the ideas propounded in 1799 by Robert Owen. By 1850 several thousand schools had been established by these and other school societies.

Despite all this voluntary activity a number of investigations and reports found such large-scale inequalities and lack of opportunity for the vast majority of English children that agitation began for the government to take a hand. Under the leadership of such men as Lord Brougham, Blackstone, Bentham, James Kay-Shuttleworth, Dickens, Carlyle, and John Stuart Mill, efforts were made to extend free educational facilities for the working classes through state auspices with tax support. Parliament, however, moved slowly. Beginning in the early part of the century many bills were introduced and several motions were made in Parliament to grant financial aid to schools, but until the 1830's all such bills were defeated by the Tories, largely through fear that public education would make servants insubordinate to their masters.

As soon as the Whigs came to power in 1830, the first steps for government support were taken. In 1833 the first national aid to schools was granted by Parliament in the form of £20,000 to be given to the National Society and the British and Foreign Society for the construction of school buildings. Government support for the religious schools was to be the typical form of national interest in education for the next thirty-five or forty years. Several times in the 1840's and 1850's the amounts of state aid were increased and extended to other school societies as well as the two just mentioned. In time, the national money could be used by the societies for maintenance and current expenditures as well as for the

building of schoolhouses, and in 1839 a committee of the Privy Council was appointed to administer the funds and provide inspectors to visit the schools to which money had been granted; in 1856 this committee was transformed into a Department of Education. Stimulated by the arguments that the industrialization of the country made it necessary for factory foremen and skilled workers to be able to read and write, the beginnings of state support were made.

Many liberals were not satisfied, however, with such halfhearted measures, and in 1850 a National Public School Association was formed to agitate for free, compulsory education supported entirely by the government through taxation. This, of course, met great opposition from the conservative and religious groups; the Anglicans wanted to maintain religious education; the dissenters wanted religious schools but did not want the Church of England to have a monopoly in the field; and both opposed the liberals, who proposed secular schools. In the midst of the agitation Parliament appointed in 1858 a committee known as the Newcastle Commission, whose investigations led it to recommend that free, compulsory education was undesirable, for the evils of a compulsion that invaded the individual's rights outweighed its advantages.

Finally, while Gladstone and the Liberal Party were in power, an elementary-education act known as the Forster Act was passed in 1870. The country was divided into school districts under the jurisdiction of local school boards. The voluntary school societies were given a year to establish schools in any districts where they were needed; if this was not done, the school boards were authorized to establish public "board" schools to be supported partly by taxation and partly by fees from those parents who could afford to pay. They were to be free for those who could not pay tuition. The local boards were also authorized to make attendance compulsory from the ages of six to thirteen if they wished.

The religious question was solved by requiring the instruction in the board schools to be secular, while the voluntary schools could give religious instruction provided that children were not compelled to receive such instruction if their parents did not wish it. The modern "released-time" plan of religious instruction was foreshadowed when it was required that religious instruction should come at the beginning or at the end of the school day so that pupils could be withdrawn during those hours if the parents so desired.

As the century ended, a national Board of Education was created by joining the Department of Education and the Department of Science and Art in a single agency to deal with all kinds of elementary, secondary, and technical education. In contrast to the ministries of education in France and Germany, however, the English national Board of Education did not have the authority to appoint or discharge teachers, select text-

books, prescribe the curriculum, or give examinations. Its primary duties were to enforce attendance, to pass on physical equipment, buildings, and qualifications of teachers, and to make suggestions and give aid concerning matters of curriculum and methods. This arrangement was based upon a distinction between the external setting of education, upon which the national Board of Education had compulsive power, and internal matters of curriculum and methods of teaching, which were left to local judgment and initiative.

It is, of course, dangerous to generalize too easily about whole nations and their educational systems as developed over a century, but certain facts concerning educational organization in France, Germany, and England seem to stand out. France and Germany were much more self-conscious than was England about generating a nationalistic spirit among their peoples, and thus they arrived at roughly similar centralized systems of national education, whereas England was content to allow much more flexibility and scope to private and religious agencies. The military rivalry of France and Germany on the Continent perhaps accounts for some of their nationalistic emphasis; Germany had to stimulate a feeling of national unity within a few years, a process that had long been achieved in England; and the French penchant for orderliness and logical patterns made a centralized system appropriate to France, whereas England was content with variety and lack of system because of a stronger, though more informal sense of national unity despite political and economic diversity.

One thing common to all three countries, however, was their essentially aristocratic social organization, in which class distinctions were accepted as more rigid and more appropriate than in the United States. This meant that the educational systems of all three countries reflected the class distinctions in society. Despite centralized control in France and Germany as contrasted with decentralized control in England, all three countries agreed that elementary education was intended for the common people and that secondary education was to be reserved for the upper classes. Elementary education was aimed not at producing democratic citizens but at fitting the ordinary people for the state in life to which they were called, whereas secondary education was conceived as fitting the potential rulers of the nation to take their rightful places in the state, church, or business world. Whenever American education is compared with European education, this essential difference in social structure and purpose of education should be taken into account.

Improvement of the Teaching Profession

Teaching became a much more widely recognized profession in the nineteenth century than ever before. The building of national school

systems on a mass basis in a relatively short period of time meant that whole new generations of teachers had to be prepared by direct methods in specific institutions for teacher training. An indication of the growing importance of the teaching profession is the way in which conservatives "viewed with alarm" the role of the teachers in the nineteenth-century revolutions in France and Germany. Reactionary leaders may have been looking for a scapegoat, and they naturally chose a fairly helpless group to blame, but the fact that they chose the teachers in addition to others is indicative of the growing belief that it makes a difference what kind of schools and teachers a society has.

Although the provisions for teacher training in France, Germany, and England differed, they all held to the principle that elementary school teachers should receive a preparation different from that for secondary school teachers. This principle followed from the social and educational distinctions that were maintained in the two-track system of schools. Inasmuch as secondary schools were preparatory to and closely allied with universities, it was expected that universities should prepare teachers for the secondary schools. Inasmuch as elementary education did not lead to the universities, it was necessary to establish separate and "inferior" training institutions to prepare teachers for an inferior type of teaching. Social and educational inbreeding of teachers was accepted as normal and proper.

France. The training of secondary school teachers in France received a great impetus from public sources in 1810 when Napoleon established a Superior Normal School to prepare teachers for the *lycée* and *collège*. The Superior Normal School eventually came to be looked upon as a higher faculty of university standing and emphasized university-grade instruction in the classics, mathematics, and other subjects appropriate to the secondary schools. By the middle of the century the most important degrees awarded at the Superior Normal School were in classical literature and grammar, philosophy, history, science, and mathematics. The acquisition of subject matter and of systematic knowledge was considered to be the chief instrument in the teacher's preparation for teaching. Graduation from a secondary school was requisite to entrance to the Superior Normal School, and thus the class lines were rather rigidly drawn.

The law of 1833, which provided for primary normal schools to be established in each department of France, gave a great stimulus to the training of teachers for elementary schools. A few years later, such normal schools were also provided for older girls who wished to become teachers in the primary schools for girls. Graduation from the primary schools was the normal requirement for entrance to the primary normal schools upon the passing of state examinations. Naturally enough, no one entitled to go to a secondary school and to the higher faculties would

be interested in teaching in the "lower" schools. Courses in pedagogy and methods of teaching modeled somewhat on Pestalozzian lines were introduced into the normal schools in the 1830's and 1840's, but apparently these newfangled ideas were considered dangerous by the reactionary elements of the Second Republic and Second Empire, for the normal schools were the targets for particular reproach when teachers were being blamed for supporting the Republic.

The curriculum of the primary normal schools was thereupon narrowed, shorn of its "theory" and "methods," and reduced to the acquisition of subject matter of primary school subjects. Even the Superior Normal School received its share of rebuke; the degrees in philosophy were suspended, degrees were withheld from students who were suspected of liberal views, and instructors were forced to leave. After the establishment of the Third Republic the curriculum of the primary normal schools was expanded again, but all the details of entrance, subjects taught, textbooks used, and qualifications of the instructors in the normal schools were directed by the Ministry of Public Instruction. The system became a completely closed one, under state control and aimed at training efficient, competent, and loyal teachers.

Germany. As a result of the enthusiasm of the liberal movement of the early nineteenth century, the teacher-training institutions of Prussia gained great impetus and soon became models for the world to follow. Before 1840, great improvements were made in the preparation of elementary school teachers. Borrowing much from Pestalozzian ideas, new teachers' seminaries were set up under public control, the curriculum was broadened, and new courses were introduced in methods, theory, pedagogy, and "didactics." In 1848, the liberal teachers linked with their proposals for a more democratic school system a request that elementary teachers should be trained in the universities along with secondary teachers, but the reactionary movement killed their proposals. The regulations of 1854 struck out the dangerous instruction in methods and theory, a move paralleling the move to limit instruction in the teachers' seminaries to those subjects to be taught in the elementary schools. Some of the professional content, however, was restored by the regulations of 1872, which gave more freedom to such secular subjects as history of education, theory, psychology, and logic. But the German system did not allow university instruction for elementary teachers, and the principle of in-breeding remained paramount.

Meanwhile, the early liberal movement also affected the preparation of secondary school teachers. Some of the universities began to give special instruction in "pedagogical seminaries" in the subjects of the secondary schools. Prospective teachers in the secondary schools were required to pass state examinations before they could acquire certificates to teach;

these examinations came to include the classics, mathematics, science, history, and geography. A year of practice teaching was also required for all new teachers. Such developments soon attracted the attention of many American educators who began to urge the improvement of American teacher training along Prussian lines. In fact, the dual system of training teachers in the United States for long followed European models of inbreeding; only fairly recently has preparation for elementary teachers been raised to university levels of instruction.

England. As would be expected from the English voluntary system, the preparation of elementary school teachers was largely carried on in institutions run by private and religious school societies. Proposals for public training colleges for teachers met much the same fate as proposals for public schools. The result was that the government granted financial aid to the voluntary societies to help them support their training institutions, of which there were 32 in 1860. All but 2 of these were receiving government aid and were being inspected by the government, but the teaching staffs were regularly representative of the denominational faith that controlled the school.

In 1846, England set up an apprenticeship system of teacher training by which a student-teacher was assigned to a regular teacher in the school and received a government grant for support; the regular teacher to whom the apprentice was assigned also received payment; and the regulations for their working and teaching together were laid down by the government. Practice schools were very often maintained in connection with the teacher-training institutions. Much of the stimulus to teacher training came from the monitorial system, in which the large numbers of pupils required new techniques of teaching to replace individualized instruction. By 1890, training colleges were permitted in the university colleges, but in general the vast majority of secondary school teachers were considered to be properly prepared if they graduated from a secondary school and perhaps attended a university.

EDUCATIONAL AIMS, CURRICULUM, AND METHODS

The forces of nationalism, conservatism, liberalism, and religion deeply affected the content and methods of education in the nineteenth century. In general, conservatism in education was likely to stress a narrower curriculum, to resist new subjects, and exalt religious and nationalistic values in elementary education; it likewise expressed itself in favor of the aristocratic ideals of class distinctions in secondary education. Liberalism was likely to argue for a broader curriculum, the introduction of newer scientific and technical studies, and an emphasis upon humanitarian values that would enlarge social vision, reduce class distinctions, and

develop the individual capacities of the common people as well as the upper classes.

Elementary Education

Switzerland. Before discussing education in the larger European countries, it is necessary to mention important developments that were taking place in Switzerland at the beginning of the nineteenth century. Outstanding in this respect was the work of the great Swiss educator, Johann Heinrich Pestalozzi, who was deeply stirred by the poverty and the disintegration of family life that overtook the lower classes of Switzerland as a result of the French wars that devastated Switzerland at the end of the eighteenth century. He strongly believed that society could be improved by helping individuals to develop their own powers, abilities, and feelings of self-respect and security. To this end, Pestalozzi established orphanages at Neuhof and Stans for poor children whose fathers had been killed in the wars; later he established boarding schools for boys at Burgdorf and finally at Yverdon, where he gained his greatest fame during the first quarter of the nineteenth century.

Conducting his schools with sympathy and gentleness, Pestalozzi tried to recapture the ideals of a sound family life with its emphasis upon mild discipline, loving care for the children, and religious and moral inspiration. He broadened the conception of what the elementary curriculum should contain and, perhaps more than any other single person, helped to introduce into the elementary curriculum instruction in geography and nature study, drawing, and music, along with the more commonly accepted studies of reading, writing, and arithmetic. In all these studies Pestalozzi emphasized the development of sense perceptions by associating models and actual objects with the symbols and meanings that described them. In his stress upon the importance of developing all the mental, physical, and moral powers of the individual by methods of sense realism and gentle discipline, Pestalozzi represented a much more liberal approach to elementary education than was common in the schools of his day.

Two other movements that reflected Pestalozzi's influence were later to affect American education. One was Philipp Emanuel von Fellenberg's institute at Hofwyl in which emphasis was put upon practical training in agricultural and industrial arts in order to spread technical knowledge and skills among the lower middle classes and peasants. In this way he hoped that the lower classes would be enabled to improve their social and economic status by increasing their ability to produce food, clothing, handicrafts, and all kinds of goods. The other influence was that of Friedrich Froebel, whose *kindergartens* for younger children became an important means of developing their mental, moral, and expressive powers before they entered the regular elementary schools.

Germany. Under the liberal impetus of the early nineteenth century, the German *Volksschule* for the common people was affected by Pestalozzian ideals, and the basic curriculum was therefore broadened to include nature study, geography, drawing, and music, in addition to reading, writing, and arithmetic. The reliance upon religious and moral instruction and the development of loyalty to the nation, however, remained uppermost. History and literature extolling Germany soon came into the curriculum as a means of instilling nationalistic loyalties; physical education as a basis for military training also appeared. These subjects constituted the basic elementary school curriculum throughout most of the nineteenth century, a curriculum shaped by religion and nationalism in order to produce obedient, loyal, and humble subjects of the monarchy and empire. The methods of instruction were likewise designed to emphasize discipline, obedience to the authority of the teacher, and reliance upon the authorized textbooks, rather than the development of initiative or resourcefulness among the students.

France. The conservative ideal of primary education in France was eloquently expressed by Napoleon in 1808, when he stated that the schools should teach the Roman Catholic religion, inculcate fidelity to the emperor, and produce citizens devoted to the church, the state, and their families. Following this ideal, the law of 1833 virtually fixed the primary school curriculum at the three R's and moral and religious instruction. This curriculum was somewhat broadened in 1850, when primary schools were allowed to include, if they wished, such studies as history, nature study, geography, drawing, and music.

The higher primary schools were designed to build upon these subjects and add such practical studies as geometry, surveying, agriculture, industrial arts, and commercial instruction. Because the higher primary school was shaped by the economic motive to improve competence on the farms and in the factories and cities, the higher primary schools had a difficult time achieving social acceptance because of the opposition of the secondary schools. The upper classes would not send their children to inferior schools, and the working classes often could not afford education beyond the rudiments because they needed the older children at home to contribute to the family income.

The principal changes in French primary education came with the Ferry law of 1882, which required the secular aspect of the curriculum to be expanded and its religious instruction to be narrowed. Although specific religious doctrines could not be taught, much was still made of moral instruction in the duties of children to God, family, and the Republic. The basic primary school curriculum thus came to include moral and civic instruction, the three R's, history, geography, and political economy, science and mathematics, drawing, music, and military gymnas-

tics for boys, and needlework for girls. The authoritarian role of the teacher, the strict discipline and obedience of pupils, and rigid adherence to state textbooks and curriculum marked the internal life of the schools, in which the glorification of France was uppermost.

England. English elementary schools were not greatly different, except that the nationalistic aim was not nearly so consciously developed through history or geography and the expansion of the curriculum was perhaps slower in taking place. Generalizations about England are difficult, for there were no centralized curriculum making and few laws regarding the curriculum. In the main, however, the elementary curriculum of the voluntary schools was most commonly made up of the three R's and religious instruction, whereas religious instruction in the public schools was prohibited by the Forster Act in 1870.

The Sunday school movement was initiated by Robert Raikes, a newspaperman who sought to awaken public opinion to the need for education among the children who worked in the factories from sunrise to sunset for 6 or even 7 days a week. Upon his initiative, voluntary schools were established in Gloucester to teach the three R's and the catechism to working children during their free time on Sundays. When Sunday school societies were formed, the idea spread to the United States, where such schools were popular in the first half of the nineteenth century.

Another specific educational response to the Industrial Revolution was the infant school, sponsored by Robert Owen, Scottish manufacturer, philanthropist, and socialist. In addition to agitating for reducing the hours of child labor, Owen was instrumental in establishing schools for small children whose parents worked all day in the factories. These schools likewise taught religion and some of the elements of the three R's, although much of the attention was directed at simple play, singing and dancing, and nursery care for three-, four-, and five-year-olds. As Pestalozzian ideas were introduced, the instruction put less emphasis upon books and more upon natural objects. The creation of societies for the spread of infant schools was another step in the recognition of the need for educational opportunities for young children.

The most influential type of elementary school was the monitorial system developed almost simultaneously by Joseph Lancaster, a Quaker, whose ideas were spread by the British and Foreign School Society, and by Andrew Bell, an Anglican, whose ideas were backed by the National Society. The underlying principle of monitorial instruction was achieved by using the older children as monitors, or helpers, for the teacher. The teacher instructed the monitors in a lesson, and each monitor "taught" the lesson to 10 or 12 small children by repeating what he had learned. The small children then recited aloud and in unison whatever was being taught. Wall placards and charts were much in use to aid in group

instruction and to save money on books. The subject matter was still principally the catechism, reading, writing, spelling, and arithmetic.

Perhaps the most noticeable gains of the monitorial system consisted in making a minimum of education available to larger numbers of children through the use of group methods, efficiency, and economy. Corporal punishment was abolished, punishment being restricted to the dunce's cap and standing in the corner, and a system of merits and rewards was substituted to enlist the interest of the children. Ostracism and derision replaced the birch rod to a considerable extent. Children began to enjoy school somewhat more because of the marching, noisy activity, and rewards. The monitorial schools had a great vogue in the United States in the early nineteenth century.

Secondary Education

In virtually all countries of Europe, secondary schools were designed for the upper classes as preparatory institutions for entrance to the universities and for leadership in the social class to which the youth's parents belonged. The logic of the system of secondary education maintained that a truly educated person should possess the traditional hallmarks of a liberal education, namely, the classics. Since only relatively few children in a nation were capable of mastering such subjects, they were the only ones thought to be entitled to a genuine education. The strong hand of Humanism became even stronger in the nineteenth-century secondary schools. Conservatives tried their best to block the introduction of scientific and modern subjects into secondary education. Although they could not hold out entirely against the liberal demands for a more flexible and wider curriculum, they were able to protect the "best" schools from such inroads. Sometimes they were forced to allow new types of secondary schools to be established outside of the inner circle, but the general framework of secondary education as opposed to elementary education was successfully maintained. Most efforts to eliminate the rigid two-track arrangements for elementary and secondary education were defeated.

Germany. In the first half of the nineteenth century the classical gymnasium emerged as the standard secondary school of Germany. It was a 9-year school for boys from the ages of nine to eighteen years and was the preferred road to the universities, public office, and the army. It emphasized, above all, the study of Latin and, to a lesser degree, Greek, mathematics, science, history, and geography. Religion continued to hold a high place. When the "leaving examination" taken at completion of the *Gymnasium* was recognized for admission to the universities, the status of the *Gymnasium* in German education was ensured. All the attempts of liberals to increase the amount of science taught and introduce the

modern foreign languages were defeated; even the efforts to make classical study a creative and liberalizing experience in the spirit of a new Humanism were defeated by the reactionary elements of the 1820's. The supremacy of a narrower study of Latin grammar and drill was maintained. This was a part of the repressive Carlsbad decrees, which reinforced strict supervision of the curriculum and weeded out any teachers or students who dared to deviate from the straight and narrow path of obedience and loyalty to the king.

The achievements in science and the gains of the Industrial Revolution, however, were not to be completely denied, and after the middle of the century newer types of schools were recognized, if not on a par with the *Gymnasium*, at least as better than elementary schools. One of these was the *Realgymnasium*, which represented a compromise according to which Latin was retained but Greek was omitted in order to give more time to science and modern languages. Although these schools were attacked by conservatives on the basis that they failed to give real mental discipline, they were finally accorded the right to give leaving examinations in science, mathematics, and modern languages that entitled the graduate to enter the universities. A third type of school also gained some recognition on the fringes of secondary education against the objections of the conservatives. This was the *Oberrealschule*, which was so radical that it omitted Latin as well as Greek and shaped its curriculum entirely around the sciences, mathematics, modern languages, and social studies. It was, of course, attacked as utterly lacking in "culture" and discipline because it omitted the classics. All the above schools were 9-year institutions, but each had its 6-year counterparts from which students could go on to the 9-year schools; the 6-year schools were, respectively, the *Progymnasium*, the *Realprogymnasium*, and the *Realschule*.

France. In France the *lycée* was the highest type of secondary school, emphasizing Latin, Greek, and mathematics, with some provisions for philosophy and science in the last year. The *collège* was also a recognized secondary school but remained in a somewhat less respected position because it was generally found in the smaller towns and thus had less standing and fewer facilities. Both these schools were designed as 6-year institutions, beginning at age twelve and ending at eighteen. The shorter courses meant that the child was older when he entered these schools than was the case in Germany, but they were no less designed as aristocratic schools for the upper classes and no less dominated by classical Humanism.

Much the same type of struggle took place in France as in Germany between the proponents of classical and those of modern subjects. Efforts were made in the latter half of the century to give a larger place to science and the modern languages in the *lycée* and *collège*, but most of these

efforts were defeated. At one point two different courses were instituted during the last 3 years of the school, when students were to have a choice between the classics and science, but the scheme did not work. Teachers were not so well trained in science as in the classics; the Humanists could therefore look down pityingly upon the scientific course as undisciplined and feeble. Great controversies raged between the classicists and the modernists during the 1880's and 1890's, but the Third Republic did not depart from the Humanistic tradition as the recognized road to preferment in public affairs and university study. Even more successfully than in Germany the modern subjects were kept out of the secondary schools and relegated to the higher primary schools. The Humanists were so convinced that real education meant classical education that they would brook no compromise until the twentieth century.

England. The great "public" schools set the standards and ideals for all other types of secondary school in England. The nine great "public" schools were usually admitted to be Eton, Winchester, Charterhouse, Westminster, Rugby, Harrow, Shrewsbury, St. Paul's, and Merchant Taylor's, and in these classical Humanism continued to play the central role. The English set great store not only by the classics but by the corporate life of the boarding school as molders of the religious, moral, and intellectual life and of the manners and behavior appropriate to a gentleman's son. The community life of the English secondary schools was one principal way in which they differed from their counterparts in France and Germany.

Despite the hold of the "public" schools upon English life as exemplified by such famous schoolmasters as Thomas Arnold of Rugby, criticisms and attacks upon them increased during the century. Demands for a more democratic and more practical type of education were made, but with relatively small results, even though such spokesmen as William Whewell, Thomas Huxley, and Herbert Spencer were doing their best to gain for science recognition as an essential ingredient in a liberal education. When new schools were established, they generally tried to follow the lead of the "public" schools and to appeal to a similar clientele among the upper classes. Many kinds of endowed schools, proprietary schools (in which the income was fed back into the corporation controlling the school), and private schools (conducted primarily for profit) were established.

After the middle of the century Parliament responded to the dissatisfaction being expressed and appointed several commissions to study the conduct of the secondary schools. The Clarendon Commission ended its study of the nine "public" schools by justifying the classical curriculum as the principal determinant in the molding of the English gentleman. It recommended more attention to the sciences, modern languages, and

social studies, but in general the public schools were given a clean bill of health. The Schools Inquiry Commission under Lord Taunton then studied all secondary schools and found a great diversity of quality and teaching standards, much of them bad. This commission made several far-reaching suggestions concerning reform of the curriculum, closer supervision by the state of the achievements of students and certification of teachers, and a more systematic organization. These suggestions apparently were too radical, however, for Parliament overlooked its report and passed the Endowed Schools Act of 1869, which simply appointed a commission to help the endowed schools to make more satisfactory plans for managing their endowments. Public control of "public" schools was too radical a step for England to take in the nineteenth century.

Higher Education

Germany. In Germany the universities were making substantial strides toward freedom for the individual professor and for the individual student. Despite reactionary attempts to stamp out liberalism in the German universities, Humboldt made of Berlin a university of independence and freedom, in which instruction was carried on not in the form of a prescribed curriculum but in a situation in which the professor had freedom to teach what he thought best and the student freedom to study what he desired. In the early nineteenth century the most important studies were philosophy, the classical humanities, philology, and history. The studies of mathematics and natural science, however, began to gain ground soon after the beginning of the nineteenth century; by the end of the second decade, they were flourishing; and during the second half of the century, they took over the leadership as the dominating studies.

As the interest in speculative philosophy was overshadowed by the rise of research in the physical sciences, an ever-increasing specialization in the fields of investigation took place. Consequently, the number of departments increased; the number of professors in each department multiplied many times, and the greater need of specializing in order to reach a competent degree of scholarship led to the free use of the elective principle. According to this principle the student was not required to follow a whole round of prescribed studies but was free to select the field of study in which he wished to specialize and to attend what lectures he needed in order to obtain his degree. The faculties of the German universities were nearly equivalent to what Americans know as a graduate and professional school; the English and American conception of a "college" was no longer known in German university circles. The highest ideal of the German university was the training of a research specialist.

France. University development in France took an entirely different course. The University of Paris, along with other French universities,

virtually ceased to exist during the French Revolution, and it was not reestablished until 1896, when the separate faculties set up by Napoleon were again combined to constitute the University of Paris. Throughout most of the century, university instruction was carried on in the separate faculties of letters, science, medicine, and law, which operated under strict regulations laid down by the Ministry of Education. Attendance at lectures and exercises was compulsory; the courses of instruction were prescribed for each year; and state examinations had to be passed before the student could be promoted from one year to the next. In contrast to the situation in Germany, much of the active scientific research went on outside the faculties, often in connection with the Academy of Sciences.

England. The English universities began to recover a measure of their old vitality with the beginning of the nineteenth century. During the first half of the century, Oxford began to reform its examination system from within so that a student needed more adequate preparation for passing his examinations, and "honors courses" became added inducements for the student to attain a high degree of scholarship. The first honors courses were in the classics and mathematics; then, with parliamentary acts to reform the universities, other honors courses were added in the second half of the nineteenth century. At Cambridge, mathematics continued to gain in importance during the last part of the eighteenth and the early nineteenth century; it had been the first subject in which a regular tripos (honors-course examination) was held (1747). Then triposes were added in civil law (1815), classics (1824), moral sciences (1851), and natural sciences (1850). Although this marked an advance over the lethargy of the eighteenth century, the English universities were still far behind the German universities in regard to scientific research and freedom of teaching and learning; courses were still prescribed, and all religions but Anglicanism were proscribed. Not until 1871 were the English universities freed from doctrinal tests for all degrees, fellowships, and university and college offices. Prospective clergymen still were required to give evidence of Anglican orthodoxy.

Controversies concerning the aims of higher education. In Europe, the controversy over the functions of universities took two forms: debates concerning the relative value of science versus literature as the main subjects of study; and wholesale criticisms of the established university systems, especially as developed in England. The most insistent English advocates for a greater emphasis upon scientific studies were Spencer and Huxley; the outstanding defender of literature, and especially of the literature of ancient Greece and Rome, was Matthew Arnold. In his famous essay *What Knowledge Is of Most Worth?* Spencer insisted that the physical sciences provide the knowledge that is most

valuable for the guidance and conduct of life as well as for mental discipline. He advocated that science should be given a greater place in education, because it is so much more efficacious than the classical literature in preparing for the main functions of human living, which include self-preservation and bodily health, the gaining of a livelihood, the activities of parenthood and citizenship, and the relaxations and pleasures of leisure and art.

By means of speeches and writings, Huxley carried the banner of scientific studies through the British Isles and the United States. He eulogized the value of science for promoting mental discipline as well as for the practical information that it conveyed. In *Science and Culture*, Huxley pointed out how the introduction of the scientific studies had met the continued opposition of the classicists and even of businessmen at first, but he argued that neither the subject matter of nor the mental discipline afforded by the classics justified the expenditure of time given to them. For real culture an exclusively scientific education is as good as an exclusively classical one, but both literary and scientific studies are needed to prevent undesirable mental twists in the educated man.

Arnold was the most vigorous opponent of Huxley and Spencer. He attacked the utilitarian aims of scientific and practical subjects on the ground that they might drive out true "culture." He defended the classical languages and literature as the best means of developing the spiritual and moral qualities of man and of arriving at his famous ideal of culture—"to know the best which has been thought and said in the world." The counterpart of this controversy in England over the place and functions of science versus the classics was carried on vigorously in the United States.

Another means by which the ideal of university education received more explicit formulation both in Europe and in America was the great amount of general criticism that was being leveled at the universities. Cardinal Newman's idea of a university, for example, was that it is a place for teaching universal knowledge and aiming at "intellectual culture." In a liberal education, knowledge should be acquired for its own sake, with no ulterior motive, whereas, in a professional or useful education, knowledge is acquired with the aim of teaching as a means of revenue, or as a basis for social service. The university should disseminate knowledge of the liberal sort only, and thus its highest aim is to cultivate the intellect.

Huxley formulated a quite different idea of a university in his inaugural address as rector of the University of Aberdeen. "In an ideal University, as I conceive it, a man should be able to obtain instruction in all forms of knowledge, and discipline in the use of all the methods

by which knowledge is obtained." He then outlined the various fields of knowledge that he would include; among them there should be no question of relative importance or superiority. It is very evident, however, that he proposed much more of the scientific subjects than was customary in the English universities of the day.

Spencer, Huxley, Arnold, and Newman are merely examples of the wide discussion concerning university education that took place during the latter half of the nineteenth century in both Europe and the United States. Gradually, the notion gained currency that a true university is one in which all branches of knowledge are taught and investigated, the teacher has the freedom to follow the truth wherever it leads him, and the student has the freedom to study whatever pleases him or best suits his needs and capacities. The German universities most nearly approached this conception of a university and therefore became the source of inspiration for many of the changes in American higher education in the nineteenth century.

Educational Theory

Pestalozzi. So much has been written about the ideas of Pestalozzi and his educational influence that it is difficult to do more than restate a few important generalizations. Much of Pestalozzi's fame was doubtless achieved because he not only wrote about educational theory but also conducted schools embodying his theories in practice for all to see.¹ Many came to observe and carry back their enthusiasms about what they saw. Furthermore, Pestalozzi was not a radical; he was profoundly religious and always put the religious and moral instruction of children at the top of his list of important aims for education. To be sure, he talked of social reform, and he had allied himself with liberal groups; but he looked upon the reform of society as a thing to be achieved by helping the individual to help himself. Apparently even this approach went too far for the conservatives of Prussia and France, but his sympathy for the downtrodden and underprivileged touched a responsive chord among the philanthropically minded middle classes. Likewise, Pestalozzi's emphasis upon the practical activities of children, starting with motor skills and leading to vocational competence in farming, trade, and industry, attracted those who were dissatisfied with the exclusively literary and linguistic emphasis of most schools of the day.

Above all, however, it was Pestalozzi's conceptions of learning that appealed to educators who were looking for new ways to teach the children of the common people. In this respect, too, Pestalozzi did not offend by his radicalism but attracted favorable attention by his appli-

¹ Pestalozzi's best-known books are *Leonard and Gertrude* and *How Gertrude Teaches Her Children*; his most famous school was at Yverdon, Switzerland.

cation of Locke's empiricism and Rousseau's naturalism without giving up the doctrines of faculty psychology and religious sensitivity. His theories of individual development thus became his most effective contributions to educational theory and method. He looked upon the child as a unity made up of separate faculties of moral, physical, and intellectual powers, all of which were to be harmoniously developed by education.

His reliance upon naturalism is revealed by his insistence that the natural instincts of the child should provide the motives for learning, rather than prodding and compulsion from without. Cooperation and sympathy are the means by which to achieve discipline, rather than physical punishment. In this way the natural powers of the child can develop and can be expressed freely and naturally. Since it is nature that gives the drive to life, it is the job of the teacher to adapt instruction to the individual child according to his changing, unfolding nature and the various stages of his natural development.

Pestalozzi's reliance upon sense realism is also evident in his approach to educational method. Since sense perceptions are most important in the development of the mind of the young child, it is necessary to rely at the earliest stages upon observation of actual things and natural objects rather than upon books and reading. Pestalozzi devised a whole series of "object lessons" in order to give full play to the child's natural desire to develop his senses of sight, touch, and sound and as the means of acquainting him with the fundamentals of language, number, and form. Plants, animals, special models, tools, drawing, modeling, music, and geography were important items in Pestalozzi's program for developing the perceptive faculties. Such methods made a great impression upon educators accustomed only to the reading of books, memorizing, and reciting. Pestalozzi's emphasis upon proceeding from the particular to the general, from the concrete to the abstract, was particularly impressive at a time when children were learning Latin with little understanding of its meaning.

Most important of all, Pestalozzi's methods were so well developed that it was soon recognized that a new kind of training was necessary for teachers if they were to be able to use such methods. Henceforth, teachers would need to study the nature of the child more closely in order to guide his development properly and to adjust instruction to his requirements and interests. Once this need had been recognized, an enormous step forward had been taken. At last schoolteaching could be looked upon as a profession that required special and professional preparation and not merely as a task for someone who could do little more than make quill pens or whittle strong birch rods—and use them.

Pestalozzi made a lasting contribution to the rise of a teaching profession in the nineteenth century.

Froebel. Another important contribution to the theory and practice of education was made by Friedrich Froebel, who taught with Pestalozzi and conducted his own schools in Switzerland and Germany. Froebel was impressed not only by the sense realism of Pestalozzi but also by the idealistic philosophy of his day. He formulated a whole philosophy of absolute idealism in which he assigned a place to education and the development of individuals. Froebel thought of the world and of the universe as a great unity in which there are no divisions between the realm of spirit and the realm of nature or between the individual and society. The Absolute appears in all nature as the guiding spirit and ultimate goal of existence; all things find their unity and their essence in God as his will is unfolded on earth.

Fitting education into this scheme of things, Froebel looked upon the child as an agency for the realization of God's will in human nature. Through education the child's spirit becomes linked with the spiritual unity of the Absolute. The purpose of education is to help the child unfold his powers so that he may enter into spiritual union with God. Since growth is an inherent aspect of the realization of the Absolute, the growth of children is a part of the expression of the divine essence. As the spiritual essence of the Absolute is active, creative, and morally good, so must the inherent powers of the child be allowed to develop freely in order that he may achieve unity with the Absolute. This freedom of activity will give the child a chance to develop his energies, his natural curiosity, and his spontaneous activity.

Froebel felt that the educative process should start with the small child of three or four years. He called the institution appropriate to young children the kindergarten, a garden where children grow. The characteristic methods of growth and learning for young children are play activities. Play is as natural and appropriate for small children as work is for adults. Therefore, Froebel designed a variety of play activities to develop the whole nature of the child, his moral and emotional nature as well as his intellectual nature. To this end, drawing, clay modeling, painting and coloring, singing, dancing, dramatic stories, and the manipulation of blocks, patterns, paper and cardboard objects, balls, and cubes were all considered appropriate. In tune with his idealistic philosophy a large measure of symbolism was assigned to these activities; the objects were thought to be "gifts of God" and the activities were felt to be divine "occupations," all leading to the closer identification of the child with the divine spirit and social unity. The handling of a ball or sphere was somehow supposed to give the child a sense of the perfect unity of all things, and sitting in a circle was

supposed to make him feel his identification as an individual with his social group and eventually with the unity of all mankind in the Absolute.

Stripped of their symbolism and idealistic justification the ideals of Froebel were to become enormously influential in American education. A new respect for the child, for his individuality, and for the dynamic and active qualities of his nature meant a lessening of rigid discipline and the traditional formality of the school atmosphere. The emphasis upon manipulation of objects and freedom to explore and to express oneself produced a greater emphasis on activity and sense realism in place of the constant and regimented reading of books. The notion of group activity as a natural means of expression led to a realization of the importance of good social relationships as a desirable outcome of school and community life.

Viewing the child as inherently good led to the study of child nature and individual differences among children as proper guides to the educative process. Cooperation, creativeness, activity, growth, and freedom became by-words in educational theory and practice. In these various ways, the teaching of young children came to be recognized as an important function of the school, not merely as a preliminary to later instruction but also as a stage when the well-rounded development of the child's personality is important in its own right. An important foundation for the later conception of the "child-centered" school was laid by Froebel's kindergarten.

Herbart. A third important European influence upon American education in the nineteenth century was that of Johann Friedrich Herbart, famous German philosopher and psychologist. Whereas Pestalozzi had been particularly interested in the elementary school and Froebel in preschool education, Herbart found acceptance largely among secondary school and higher teachers. Herbart's two principal contributions were his stress upon the social and moral character of education and his systematic formulation of "methods" of teaching.

Starting with the assumption that the most important aim of education is the development of sound character, Herbart insisted that education should be primarily moral in its outlook and intent. To Herbart this was not necessarily a religious conception of morality, but rather a matter of adjustment of the individual to society. To this end, he emphasized the study of history and literature as the best means of developing desirable social attitudes in children. He even went so far as to suggest that historical and literary studies should be the "core" of study upon which the child should concentrate his efforts and with which all other studies were to be correlated. These doctrines of concentration and correlation gave an impetus to the introduction of the social

studies into American schools at a time when the classics and mathematics were struggling with the sciences for supremacy.

Despite his insistence upon the moral and social aims of education, Herbart believed that these aims could be achieved primarily through an intellectual approach to the learning process. His whole psychology of associationism stressed the importance of developing clear ideas in students. He reduced emotion, will, and feeling to secondary qualities dependent upon the association of ideas in the mind. The teacher should therefore direct his attention primarily to the processes by which ideas are formed from perceptions and sensations. Above all, the teacher must concentrate upon the problem of interest. Inasmuch as consciousness is made up of ideas associated in many ways, the teacher must see to it that new ideas are presented in such a way that they are vitally associated with ideas already part of the experience of the learner. All school lessons should therefore be taught so that the connection is clear between the new ideas and the "apperceptive mass" of ideas already built up in the learner's mind.

Herbart's followers made of his insistence upon association and interest a rather rigid pattern that came to be known as the "five formal steps" of learning and teaching. These steps were "preparation," in which the teacher prepares the child's mind by recalling the appropriate ideas in the learner's experience to which the new material can be related; "presentation," in which the new facts or materials are given to the learner; "association," in which definite efforts are made to show connections, comparisons, and differences between new and old ideas; "generalization," or "abstraction," by which analysis of individual cases leads to general principles; and "application," in which the general principles are given meaning by reference to specific examples and practical situations. At a time when reading, memory, and recitation were the principal methods of teaching, the Herbartian systematic and "scientific" methods became vastly popular. They spread rapidly through the institutions of teacher education in the United States and helped to stimulate the whole process of training teachers. In the hands of some, the new methods led to a vital professionalizing of education; in the hands of others, they were formalized into a stiff and unchanging pattern that saddled rigid "lesson plans" upon generations of teachers and their students.

CHAPTER XVI

AMERICA IN THE NINETEENTH CENTURY

During the nineteenth century, institutions and ideas continued to be transplanted from many of the countries of Europe. Millions of people came to the United States, bringing their diversified cultures with them, but in the nineteenth century the country was no longer a hot-house in which these institutions, ideas, and cultures flourished as replicas of the Old World. A new environment, new soil, and new atmosphere, nurturing the mixtures of peoples and nationalities, helped to produce a culture that in time began to feed back into Western civilization. The United States began to make its own contributions in the form of distinctive institutions and ideas; not the least important of these was a new conception of education.

THE INSTITUTIONS MEN LIVED BY

In the nineteenth-century United States the political and economic patterns of life began to overshadow the religious as claimants upon the energies and loyalties of men. The United States was becoming a secular society in which religious institutions still played a strong part but no longer the leading role. This shift in power did not take place without bitter struggles and much searching of the hearts and minds of men. These struggles found their counterpart in the conflicts between political and religious authorities for control of schools, colleges, and the means of education. The growth of political democracy, the expanding role of government, and the growth of nationalism contributed to the conception of public education that took root and flourished despite strong opposition from many quarters.

Political Institutions

General political developments. From the election of Jefferson as president in 1800, the Jeffersonian Republicans and their successors, the Democratic party, won every national election until 1860, with the exception of the Whig victories in 1840 and 1848. In general, during the early part of the century, the Democratic Republicans received their support from the independent farming groups of the South and West and

the laboring classes of the cities of the East. This coalition elected Jefferson, Madison, Monroe, John Quincy Adams, Jackson, and Van Buren. By stressing states' rights, low tariffs, popular suffrage, and opposition to special privileges the Democrats appealed to the agrarian interests of the "common man" until the 1830's, when the question of slavery and industrial benefits to business brought a change in the alignment of forces. The Federalists and their successors, the Whigs, were able to elect only William Henry Harrison and John Tyler in 1840 and Zachary Taylor and Millard Fillmore in 1848. The Whigs had generally proposed high tariffs for the protection of business and industrial interests; they thus supported a strong federal interpretation of the Union and the Constitution. With the heightening of the slavery issue, Lincoln was elected in 1860 by the new Republican party (successors to the Whigs) on a platform of free land, high tariff, and opposition to slavery, designed to appeal to the farmers of the West as well as to the industrial groups of the East.

In the latter part of the nineteenth century the political control of the federal government was exactly reversed. The Republicans elected all the presidents up to 1900 with the exception of the two separate terms of Grover Cleveland. After Lincoln and Johnson, all the Republican presidents were military men of greater or lesser importance, Grant, Hayes, Garfield, Arthur, Benjamin Harrison, and McKinley. The Republicans were able to keep their power by platforms in favor of high tariffs, free land, civil-service reform, and "sound money," which appealed to the business, industrial, and propertied classes of the East and West. Increasingly, however, discontent arose among the agrarian and debtor groups, whose dissatisfaction with the major parties was embodied in many new parties, which had only minor effects as far as elections were concerned but which often forced the major parties to adopt many of their proposals.

Labor groups formed a series of labor parties as early as 1872. These were the Labor Reformers (1872), Union Labor party (1888), United Labor (1888), Socialist Labor party (1892), and the Socialist party (1900). The Free Soil party, which had as its object to keep slavery out of the territories, and the Know-Nothing party, which attempted to render Roman Catholics and the foreign-born population politically powerless, attracted discontented persons for widely varying reasons. Agrarian groups made greater headway with their Independent National party (1876), known as "Greenbackers," and especially with the People's party (known as "Populists"), which polled a million votes in 1892. The Populists captured the Democratic party in 1896, nominated Bryan, and gave the Republicans a close race in which Bryan polled 6,500,000 votes against 7,100,000 for McKinley.

Growth of political democracy. Enormously important for the future of American political life was the extension of the ballot to wider and wider elements in the population. At the beginning of the nineteenth century the privilege of voting was limited by property and religious qualifications, but by the middle of the century white manhood suffrage was virtually won. In the 1820's and 1830's, especially, the new states of the West came into the Union with constitutions guaranteeing universal manhood suffrage (at least for white men), and many of the eastern states liberalized their voting requirements under the impact of the Republican-Democrats. The election of Andrew Jackson in 1828 is usually taken as the signal that the process of extending the vote to the farmers and laborers in the cities was well on its way.

Then with the Emancipation Proclamation and the Thirteenth, Fourteenth, and Fifteenth Amendments to the Constitution in the 1860's the principle of universal manhood suffrage, including Negroes as well as whites, was established, although methods of circumventing the principle were devised by literacy tests, poll taxes, and "grandfather clauses" in the South. Vast efforts to extend the voting privilege to women were made in the nineteenth century, with success on a state basis in the 1890's in Wyoming, Utah, Colorado, and Idaho, but without success on a national basis until the Nineteenth Amendment in 1920. Meanwhile, other gains were made for democratic political control especially through the efforts of the labor and agrarian parties. Property qualifications for holding office were gradually abolished; secret ballots replaced the colored party ballots, a step toward eliminating intimidation of voters by politicians and employers; presidential electors and senators were elected directly by the people instead of by state legislatures or party machines; and presidential candidates were nominated by national conventions rather than by party caucuses. These gains all helped to improve the democratic processes of election.

Expanding role of government. Despite the arguments for and against increasing the power of the federal government, the trend was unmistakably in the direction of expanding throughout the nineteenth century the role of the government in the affairs of the new nation. Though the Jeffersonian Democratic Republicans adhered to the principle of a strict construction of the Constitution and a narrow conception of the functions of the federal government in comparison with that of the state governments, their presidents often actually helped to enlarge the powers of the federal government. As president, Jefferson conducted the Louisiana Purchase in 1803 which added vast areas of the West to the nation, and he imposed the embargo of 1807 upon English goods, which vitally affected all American industry and agriculture. Monroe raised tariffs, annexed Florida, and formulated the Monroe Doctrine, warning Euro-

pean nations away from the shores of the Americas. Jackson would not go along with the doctrine of states' rights when he helped to prevent secession of South Carolina over the higher tariffs. Under Polk, Texas, California, New Mexico, and Arizona were added to the western territories, until the boundaries of the nation spanned a continent. Under Pierce, the power of the nation was exerted as far as Japan when Commodore Perry opened up Japan to Western trade. In all these ways Democratic administrations laid the groundwork for a vast nation in which the power of the federal government was bound to expand. A decentralized political authority could no longer be sufficient.

As the Civil War approached, however, the Democratic party began to stress the rights of states to govern themselves, and the Republican party advanced the arguments for a permanent union as set forth by Webster and other Whigs and gave to Lincoln the task of preventing the federal government from falling apart in civil war. The power of the federal government emerged from the Civil War enhanced and strengthened.

In the later years of the century, several government measures were taken to control the rampant individualism and monopolistic methods of big business. The measures to increase income taxes, control railroad rates by the Interstate Commerce Commission, and regulate monopoly by the Sherman Antitrust Act, although not applied rigorously at first, foreshadowed the trend toward even greater authority for the federal government. As the century closed, the Spanish-American War, the acquisition of Puerto Rico, the Philippines, Guam, and Hawaii, and the suppression of the Boxer Rebellion in China showed that the national government was to become a power in the world as well as at home.

Nationalism and imperialism. Born in an international war of revolution, the new nation tried to keep out of "foreign wars" and entangling alliances during its early days. Despite demands to help our "former French ally," Adams and Jefferson stayed out of the actual fighting of the Napoleonic wars, but Madison finally plunged in. As a result of the War of 1812, a new sense of nationalism swept the country. We were "on our way" and set out to win a continent by treaty, purchase, and war with Mexico and the various Indian tribes. Each success, despite opposition from some quarters, enhanced the spirit of nationalism. For a time, it looked as though the Civil War would bring the edifice toppling down, but after the wounds of reconstruction were bound up the sense of nationhood emerged stronger than ever. The expansion westward and the growth of industrial power completed the process. By the end of the century, the nation was ready to undertake deliberate imperialistic ventures that elevated even higher the spirit of nationalism.

About 1890 such men as Alfred Thayer Mahan, Josiah Strong, Henry

Cabot Lodge, Theodore Roosevelt, and Albert Jeremiah Beveridge began to preach the doctrine that the United States was now an adult among nations and must play its role in power politics. The continent had been won, and therefore new markets were necessary. The argument followed that a large navy, world-wide naval bases, and an aggressive foreign policy would lead to new outlets for agricultural products and more raw materials for industry, which would be helpful to farmers, industry, and labor alike. Likewise, it would be a spiritual good to bring American civilization and Christianity to the heathen of the world. The road to imperialism was paved with high-sounding intentions, and the Spanish-American War was the result. It was clear that the world was shrinking in size and that a "natural" isolation was steadily being broken down over a century of rapid change and expansion. By the end of the nineteenth century the several American states had been welded into one nation, but the concept of one world was yet to be recognized and yet to be realized.

Individualism versus Humanitarianism. Cutting across much of the political development just described were two underlying outlooks concerning the role of government in American society. One outlook may be called individualism and stemmed from the laissez-faire conception of the state. According to laissez-faire individualism, the government properly should refrain from regulatory control and should allow the maximum of freedom to individual initiative and business enterprise. Only through such individual effort will the wheels of society turn at maximum efficiency and each individual receive his compensation in wages or profits commensurate with his effort and initiative. If in this process any individual does not receive much return but is poor or unemployed, he has only his own improvidence, laziness, or carelessness to blame. He cannot expect government to intervene in his behalf but can only rely upon the charitable instincts of the more fortunate to help him out. Private charity and philanthropy are the proper means of relieving distress, for government aid not only will make the poor even less self-reliant but also will stifle the initiative of the more able and make the rich poorer so that they cannot help the more unfortunate. The individualistic outlook was promulgated by the capitalistic well-to-do as a justification for their own business practices, and the conditions of life in the early half of the nineteenth century seemed to justify its acceptance by great numbers of independent farmers and small owners.

However, in the latter part of the century, increasingly severe depressions, the concentration of wealth in fewer hands, and the spread of poverty and bad working conditions led to the stronger assertion of the humanitarian doctrines. According to social humanitarianism, the government is the only agency that can cope adequately with big business.

It was urged that government should become more active in promoting the public welfare and in regulating the conditions of work through which great masses of people had to earn their living. Reformers of all shades of opinion began to urge greater participation by the government in public affairs. Minor political parties, labor organizations, agrarian organizations, scholars and intellectuals began to preach programs of reform somewhat akin to the liberal, social democratic, and socialistic doctrines of Europe. Although American political democracy proceeded toward realization more quickly than in most countries of Europe, social-security legislation in the United States lagged behind that of Europe.

Demands were made for factory laws to improve safety and sanitation in industry, for maximum hour and minimum wage laws, for responsibility of employers for compensation for injury to workers, for unemployment insurance, for old-age pensions, for government control of public utilities, for public-health measures, for city planning and improvement of housing conditions, for conservation of natural resources, for prison reform, and for more humane punishment for crimes. Along with these demands for social legislation went the agitation for public education, sponsored especially by labor organizations, humanitarians, and middle-class liberals. Other groups were organized to agitate for abolition of slavery, temperance, and woman's rights. By the end of the century the abolition of slavery had long been accomplished, and the achievement in public education had outdistanced most of the other reforms; but industrial conditions were becoming such that other social measures could not long be delayed after the opening of the twentieth century.

Economic and Social Institutions

Perhaps the most significant long-term trend in American economic life during the nineteenth century was the shift from an agrarian society to an industrial society. At the opening of the century most people made their living from the land; by the end of the century the impact of industrialism and manufacturing was making itself felt in all parts of the country. The conflict between agricultural interests and industrial interests came to play a large part in the political, economic, and social life of the people. Accompanying industrial changes were the growth of city life, the more rapid and easier means of communication and transportation, the dominance of capitalistic enterprise, and the growth of organized labor. Cutting across these trends was the great increase in population, added to by the influx of immigrants from European and other foreign countries. All these developments had profound effects upon American education.

The westward movements. Beginning soon after the Revolution and continuing to the middle of the century, the shift to the areas between

the Appalachian Mountains and the Mississippi River was accelerated. As these areas were rapidly settled, new states were admitted to the Union, beginning with Ohio in 1803, followed by Indiana, Illinois, Michigan, and Wisconsin (the old Northwest) and by Kentucky, Tennessee, Mississippi, Alabama, and Florida (the old Southwest). In general, New Englanders and Middle Easterners went to the territories north of the Ohio River, whereas settlers from the southern states went to the old Southwest, though many also drifted up into Ohio, Illinois, and Indiana.

In the middle decades of the century, the frontier moved farther west as new vistas were opened up by the Louisiana Purchase, the Lewis and Clark expeditions, and the discoveries of Pike and Fremont. People began to make the longer and longer journeys to the new Southwest as well as into plains, mountain, and coastal regions of the Far West. The discovery of gold, silver, and other valuable minerals attracted the prospectors; the plains and grazing lands attracted the rancher and cowboy; and the rich farm lands attracted the homestead farmer. When the Homestead Act of 1862 was passed, the process of buying up land both for settling and for speculation was quickly stimulated. Under the Homestead Act a head of a family could acquire 160 acres (one-fourth of a section) simply by settling on the property for 5 years, building a house, and cultivating the soil, but the land could be commuted after 6 months and bought for \$1.25 an acre. This favored land speculation by land corporations and individuals who bought up great areas of land to hold until higher prices could be obtained.

In all these ways the vast land areas of a continent were relatively soon in private hands, individual or corporative, so that it was possible for the government to announce in 1893 that there was no more frontier (defined as an area in which there are more than two persons but less than six persons per square mile). For a century the frontier had been a great attraction to all kinds of persons from the East and from foreign lands. It had stimulated the ideals of individualism and equality to a greater degree than in any other country in the world, and it helped to fix these ideals as a part of the American dream of opportunity for all. But even before the end of the century new conditions were arising to make this dream of opportunity less possible of achievement.

Ruthless exploitation of vast areas of timber and mineral resources, rapid destruction of the fertility of the soil by primitive means of cultivation, and manipulation of land prices by speculators soon changed the character of the American West. The spur to large-scale farming in order to export agricultural goods as well as to produce food for individual and home consumption caused farmers to borrow money to buy more land and agricultural machinery; and high tariffs and high railroad

rates made the return to farmers lower and lower. As a result, 25 per cent of American farmers were tenants by 1880 and 35 per cent were tenants by 1900. In the Middle West some 40 per cent of farmers had mortgages on their farms by 1900.

Under these conditions the farmers began to turn to various kinds of organization. The Patrons of Husbandry was organized in 1867, and by 1875 some 20,000 local granges were active, involving some 750,000 members. They attacked railroad rates through their state legislatures and induced Congress to establish the Interstate Commerce Commission in 1887 to prevent discriminatory railroad rates and to make rates reasonable and publicly announced. The farmers supported demands for more paper money and silver money in order to relieve their debts and mortgages. New farmers' alliances appeared in the 1880's in the South and in the North, and the farm groups were the largest supporters of the Populist party, organized in 1891, whose platform came to include freer coinage of silver, income taxes, direct election of senators, initiative and referendum, secret ballot, postal savings bank, and government operation of railroads, telegraph, and telephone. Here was a grass-roots reform movement caused by democratic agrarian reaction to the increasing industrial and capitalistic control of the American economy.

Growth of industrialism. The Industrial Revolution that had begun in England in the last third of the eighteenth century swept the United States in the first half of the nineteenth century. Whereas the typical artisan and mechanic of 1800 had done his work at home or in his small shop, the trend to the factory type of manufacturing was well on its way by the 1820's, and the Northeast turned rapidly to industrial production with power-driven machinery. Led by the textile industry, the production of all kinds of heavy machinery suitable to iron production, agricultural implements, railroad equipment, building materials, and the whole range of industrial equipment soon followed. In the 1870's and 1880's the tempo was accelerated, and the key industries became steel, oil, meat packing, and railroads. By the middle of the century the capital value of city and manufacturing property was greater than the capital value of agricultural property, and by 1890 the value of all manufactured products had surpassed the value of all agricultural products. It is significant that the closing of the frontier came at about the same time as this fundamental shift from agrarian to industrial interests.

Closely associated with the industrial development were the rapid advances in science and technology, for new inventions made this degree of industrialization possible. The cotton gin, the sewing machine, the automatic reaper, the iron plow, iron smelting, the steamship, the steam locomotive, the telegraph, and improvements of roads, canals, and rivers

all appeared before the middle of the century. They were followed in later decades by the telephone, refrigeration, canning processes, the typewriter, the phonograph, steel processes, oil and gasoline processes, and electric power among many others. As these technological advances made possible mass production of goods, they also made possible more rapid distribution and transportation of goods. After the middle of the century the railroads dominated all other forms of transportation. In the 1860's and 1870's the west coast was linked with the east coast by the Union Pacific and the Santa Fe. As the telegraph and telephone were further developed, the means of communication paralleled the means of transportation. The reliance of one part of the nation upon the others was producing a degree of interdependence that only a few realized at the time.

Another vastly important aspect of industrialization was the growth of city life. As the factory system replaced household and domestic methods of production, people began to flock to the centers of production, first in New England and the middle states and then in the Middle West. As workers crowded into the cities, amid desperate conditions of filth, squalor, and overcrowding, the slum areas became a startling threat to health, morals, and sanitation, the effects of which we are still reaping in the tenement areas of all our large cities today.

Expanding population. In 30 years, from 1840 to 1870, the population of the United States doubled; in 30 years, from 1870 to 1900, it doubled again. Contributory to this amazing expansion, of course, was the immigration from Europe. Of the 76,000,000 people in America in 1900 about 10,000,000 were foreign-born, not counting the generations of children born to earlier immigrants from many lands. Of equal importance was the changing character of the immigrant population. Between 1820 and 1860 most came from the northern European countries, especially from Ireland and Germany. After the middle of the century the great sources of immigration shifted from northern to southern and eastern Europe. Whereas people from the latter areas had been less than 1 per cent of the immigration in the 1820's, the proportion jumped to two-thirds at the end of the century. In many of the larger cities the foreign-born population came to represent 30, 40, and even more than 50 per cent of their total population.

The steamship companies, influenced by employers who wanted cheap labor to break union strikes and to keep wages at a low level, made great efforts to import immigrant labor. Organized labor, on the other hand, soon began to fight these methods, for it was interested in higher wages and a restricted labor market. Labor was able to get Congress to pass the Chinese Exclusion Act in 1882 and the Contract Labor Act of 1885 to prevent the importation of cheap labor on contract by employers. As

the century drew to a close, other efforts were made by Congress to set up standards for immigration to ensure that the undesirable elements in foreign nations would not become charges upon American society. Paupers, the insane, idiots, and disease-ridden persons were excluded,

Meanwhile, American Negroes were having difficulties in making social, economic, and political adjustments. At the time of the Civil War about one-third of the population of the South was made up of Negroes, the great majority of whom were slaves. After their emancipation, great numbers of Negroes found that their freedom had been achieved without appreciable improvement in their economic security. Indeed, many found themselves in even worse condition, for their chances of becoming independent landowners was very small. Some went back to work as wage earners for plantation owners, some were able to become tenant farmers, and others drifted to the cities of the North, where they found it difficult to compete in the skilled trades because of their lack of technical training.

Beset by social, political, and economic discrimination from all sides, the Negro often found his lot desperate and at best only tolerable. As the century drew to a close, the ideal of equality of opportunity and freedom, which had been a part of the American dream, was becoming ever more difficult of achievement for large sections of the American population who found that they were not accepted as Americans because of their race or national background. This denial of the American dream put public education to the test in a way that no other cultural development had done.

Triumph of capitalism. The nineteenth century was the high point in the pervasive influence of capitalism. It saw the shift from a commercial type of capitalism to industrial capitalism, or, as some writers put it, from merchant capitalism to employer capitalism. As in Europe, the capitalist changed his economic role from that of a middleman between the worker and the buyer to that of the employer of labor, owner of the factory, machines, and tools of production, manager of the enterprise, and seller of the finished goods. This shift in the role of the capitalist began to take place with the inauguration of the factory system in the early part of the century and proceeded with greater and greater rapidity after the Civil War. In this process the corporation as a business device, and a highly successful one, entered the scene. Corporations expanded in size so enormously that they gained control of raw materials and natural resources as well as factories, railroads, and other means of production and distribution.

One of the most significant of the results of the triumph of industrial capitalism was the growing concentration of wealth in fewer and fewer hands. In 1800 approximately 90 per cent of the whites were freeholders

and independent farmers; a century later nearly nine-tenths of the wealth of the country was controlled by one-tenth of the population. As the country changed from an agrarian society to an industrial society, the capitalist methods of owning and producing goods virtually reversed the proportion of ownership. It is true that the per capita wealth of the country increased rapidly, but the growing concentration of wealth in a few hands tended to nullify much of the gains made. Likewise, the recurrent depressions often wiped out the gains that working and farming groups were able to make during prosperous times. Depressions of greater or lesser severity occurred in virtually every decade of the nineteenth century, except for the 1860's, when the economy was disrupted by the Civil War. In the last third of the century nearly two-thirds of the years were depression years.

Another most significant result of industrial capitalism was that an interdependent and collective society was being created in the nineteenth century, even though it was dominated by eighteenth-century *laissez-faire* ideas. This situation was favored by the fact that markets and factories were expanding and the reservoir of natural resources seemed inexhaustible. The capitalists preached *laissez-faire* doctrines of keeping the government out of business, but in practice they used the government to raise the tariffs for their protection, to grant enormous tracts of public land for their benefit, to grant other subsidies, and to keep taxes low. The capitalists also preached the values of competition and of the "natural laws" of economics, but in practice the growth of huge corporations created actual monopolies by buying up the smaller competitors or forcing them out of business and thus controlling prices for themselves. The courts generally supported the monopolistic trend.

Whereas industrial capitalism professed equality of opportunity for all, the realization of the ideal of equality to any such degree as claimed was prevented by the closing of the frontier, the spread of monopoly, the factory system, the growing concentration of wealth, and the control of government by the wealthy interests. The ideal of individualism was a great symbol in the American dream, and it was realized to a great extent in America as compared with other countries, but by the close of the century it was becoming less and less an actuality.

Labor movement. Meanwhile, as the capitalists used the individualistic and *laissez-faire* ideals of historic liberalism to justify their role in society, the labor movement was beginning to use the social humanitarian ideals of liberalism to defend itself. The labor movement in America arose, as elsewhere, as a protest and reaction against the excesses of capitalism. At the beginning of the nineteenth century the independent workmen and mechanics began to lose their status as the merchant capitalists gained control of the supply of raw materials and

set the workers to competing with one another for hire in a process that forced wages down. Thus, the skilled workers began to organize into trade unions or craft unions in order to improve their bargaining power and keep wages up.

In 1827 in Philadelphia 15 trade unions joined together and formed the Mechanics' Union of Trade Associations. Meeting with preliminary success, the movement soon expanded, and a political party was organized in 1828 called the Workingmen's party, designed to agitate for legislation that would extend the rights of labor. Drawing upon the humanitarian and democratic ideals of liberalism, the labor groups argued for free public education as one of the means of improving the condition of working people. Organized labor was a potent factor in extending the political suffrage in the Jacksonian era and in contributing to the "public school revival."

The opposition of the capitalists, the depression of 1837, the adoption of many of their proposed reforms by the major political parties, and the disintegration of the Workingmen's party led to a decline of the labor movement in the 1840's, but after the Civil War the trend was upward again. In 1866 the National Labor Union was formed in order to unite local and city unions into a national association. It soon began to extend its efforts from simply bargaining for higher wages to the actual production of goods through producers' cooperatives. This was too radical for the times; the bitter opposition of manufacturers resulted in its decline in 6 years.

The next and much more important effort at national organization was the Knights of Labor, which appeared in the 1870's in the effort to unite all workers into one union, regardless of race, color, sex, or creed. Under the leadership of Terence V. Powderly the Knights of Labor gained considerable strength, claimed as many as 700,000 members, and won several notable strikes, especially against the railroads. Agitation for an 8-hour day became one of their activities; but the opposition became extremely bitter, and the charge was made that the Knights of Labor were really anarchistic and extremely radical. At the Haymarket massacre in Chicago in 1886 a rally was broken up by a bomb explosion, and in the panic that ensued several policemen and a good many more workers were killed or wounded. Eight anarchists were tried and sentenced by a jury, three of them later being pardoned by Governor Altgeld of Illinois. Although the connection between the anarchists and the Knights of Labor was never established, the Knights of Labor never recovered from the attacks upon it by the industrialists.

Meanwhile, a different type of labor organization, known as the American Federation of Labor, began to gain strength from 1886 on. Basing its organization upon the principle of uniting all craft unions into

a national federation rather than into one big union for all American workers, the American Federation of Labor appealed principally to skilled workers and concentrated on collective bargaining for higher wages, shorter hours, and better working conditions. It opposed the more radical efforts of Marxist, socialist, or anarchist groups and refrained from direct political action or joining with one political party. Under the leadership of Samuel Gompers, who was president from 1886 to 1924 with the exception of one year, the American Federation of Labor worked for labor bureaus in the state and national governments, factory laws in the states to increase the safety of workers, compensation for injury, equal pay for men and women, abolition of child labor, and restriction of immigration.

In general, membership in labor unions of various kinds, including the powerful railroad brotherhoods, which began to increase in the last years of the nineteenth century, was soon well over the million mark. Organized labor not only worked to better its own conditions but also supported social legislation that would achieve public education, extend the suffrage, control monopolies, and abolish prison for debt. It was one of the most effective agencies for attacking privilege and for promoting the welfare of the common people against the injustices, poverty, and inequalities that faced the underprivileged groups, who found themselves handicapped and thwarted by industrial conditions beyond their individual control.

Other reform movements. Stemming from the social humanitarianism of France, the transcendental outlook of Germany, and the romantic ideals of England, a new American humanitarianism struck out to improve social conditions in many ways. It took the form of societies to prevent poverty, abolish slavery, soften criminal codes, improve prison conditions, extend woman's rights, prevent intemperance, and help the insane, the blind, the deaf, and the handicapped.

Approaching reform in a variety of ways, different groups were formed to achieve a more humane community life for selected persons. Religious communities went into seclusion to achieve the perfect life apart from the destructive influences of an industrial and capitalistic society. Pietists, Dunkers, Moravians, and others from Europe maintained themselves in groups apart. The Mormons under Joseph Smith and Brigham Young traveled most of the width of the continent until they found haven in Utah. The Perfectionist religion of John Humphrey Noyes produced the Oneida Community, based on the radical and primitive communism of Christianity.

Many secular communal groups also appeared in the early nineteenth century. The socialistic ventures of Robert Owen and Robert Dale Owen at New Harmony, Ind., and elsewhere attracted scores of people.

Even more extensive were the several communities established according to the socialistic associationist doctrines of Charles Fourier, who had preached the common ownership of land and common labor as means of achieving a self-sufficient community life. Brook Farm at West Roxbury, Mass., was probably the most famous of these.

In all, there were dozens of different experiments along these and other lines in the nineteenth century, reflecting the ferment of reform ideas that emerged in reaction to the sordidness and stifling quality of industrial conditions. But the industrial and capitalistic trends made wider achievement of social reform impossible without a greater organized effort than could be put forth by small and isolated community efforts. The social-welfare movement thus began to appear, signaled by the establishing of such settlement houses as Stanton Coit's Neighborhood Guild in New York and Jane Addams's Hull House in Chicago and by the publications of Jacob Riis attacking tenement conditions. By 1900 a hundred settlement houses were operating in various cities. On a national scale the American Red Cross began to provide help for those suddenly afflicted by disasters beyond their control.

Religious Institutions

Protestantism. America remained predominantly a Protestant society during the nineteenth century, but the influence of Protestantism was less all-embracing than it had been at the beginning of the century. The important principle of liberty of religious conscience and separation of church and state was achieved by the liberal and republican efforts of the late eighteenth and early nineteenth centuries. Yet conservative religious outlooks often went hand in hand with conservative political and economic ideals. In the early part of the century the orthodox churches were closely allied with Federalism, and liberal and radical religious aims found expression in the reform movements of this period. Unitarianism in New England provided an outlet for social reform in the Utopian and Pefectionist societies already mentioned. The democratic tendencies of the first half of the century were expressed in greater democratic control by the laity in several churches and in the establishment of many new sects, such as the Shakers, the Millerites, and the Campbellites, all of whom attracted dissatisfied elements from the larger Protestant churches.

Religious revivalism and emotionalism also were marked in the first decades of the nineteenth century, almost paralleling the Great Awakening of the eighteenth century. The revivalistic movement found especially fertile ground in the new West as the settlers took their own churches with them and responded to the greater flexibility, informality, and individualism of frontier life. Churches in the East became greatly

concerned about spreading the gospel in the West. The American Bible Society in 1816 and the American Home Missionary Society in 1826 set out to convert the West as well as to send missionaries to foreign lands. The circuit riders and itinerant ministers and preachers became a common feature of western life, just as the local church became one of the most important centers of community life on the frontier. Thousands of new members were swept into the churches by these methods, and efforts were redoubled in the 1840's and 1850's as some of the churches split off into northern and southern groups, notably the Methodists, Baptists, and Presbyterians. Between 1800 and 1850 church membership increased ten times while the total population was increasing only five times.

Challenges to Protestantism. Meanwhile, the great new influx of immigrants in the 1830's and 1840's and again after the 1880's brought in thousands who had Roman Catholic and Jewish backgrounds rather than Protestant. Most of the Irish immigrants and many of the German immigrants of the early period were loyal Roman Catholics; and a great majority of the immigrants from Austria-Hungary, Poland, Italy, Russia, and southeastern Europe of the later period were Roman Catholic or Jewish. The Protestants felt their way of life challenged by Roman Catholicism, and they turned upon Roman Catholics as undemocratic and un-American. The Know-Nothing party of the 1850's and the American Protective Association of the 1880's and 1890's focused this resentment in organized form. These movements were largely expressions of rural, middle-western antagonism against the industrial cities, where most of the Roman Catholics had settled. The American Protective Association was a secret society in which the members were pledged to vote against Roman Catholics and discriminate against them in employment. The ideal of fair play and religious toleration was having a hard test. Such religious conflicts remained as a sore spot in American life.

New religious groups. Perhaps more than any other country, the United States has seen the segmentation of religious groups and the establishment of dozens of new cults appealing to the dissatisfied and restless. By the end of the century Americans were confronted by some 150 religious sects that claimed their religious loyalties. If the Protestant churches were grouped together, they represented some eighteen million members, of which the Methodists, Baptists, Presbyterians, Lutherans, and Congregationalists were the largest groups. The Roman Catholic Church, larger by far than any one Protestant church, represented some ten million members. Jews accounted for perhaps a million. Throughout the century the number of church members increased more rapidly in proportion than did the total population; James Bryce

judged that no country in Europe could match America in respect to the influence of churches upon the people.

In addition to the larger churches, many new movements attracted thousands of adherents, especially as the century wore on. Among these only a few can be named. The Mormons, with their religious and economic principles that led to polygamy, attracted devoted followers and bitter enmity from the orthodox churches. Mary Baker Eddy's Christian Science, as a road to physical and spiritual health, became very popular after the 1870's. The Salvation Army from 1880 on attempted to regenerate by religious reform and material aid the lower classes affected by the Industrial Revolution. The Ethical Culture Society under the leadership of Felix Adler in 1876 attempted to appeal to the intellectual classes by emphasizing the moral and ethical values that could be gathered from social rather than supernatural sources. All in all, a great proportion of the American people was touched by one or more of the religious groups and established churches in the nineteenth century.

Response of religion to secularism. As the century moved into its later decades, the growing secularism of life, especially represented by industrialism, urbanization, and newer intellectual trends growing out of the theory of evolution, affected organized religions in different ways. The increase of wealth in the cities gave enormous financial support to the established churches. Great churches were built, money flowed to improve church services and music, and city congregations often became aristocratic and exclusive. It soon became clear that the laboring classes could not easily attend without embarrassment the services of certain churches that catered to the wealthy classes. It was also clear from sermons delivered in some of the exclusive city churches that little attention was being given to the conditions of the laboring classes. Liberalism and the spirit of reform did appear among many church leaders, however. Some liberal churches directly aided labor, under the leadership of such men as Horace Bushnell, Washington Gladden, and Josiah Strong and of the Christian Socialist Society of the 1880's. Liberal Episcopalians formed a society for the advancement of the interests of labor, and the Pope's encyclical in 1891 recognized the rights of labor.

The observance of Sunday in the Puritan tradition began to be weakened as the European immigrants brought with them their less rigid ideas concerning the proper activities for the Sabbath. This caused concern among many groups, who organized Sabbath societies to reinforce a more ascetic observance of Sunday. Other churches turned to secular methods to hold and attract membership, instituting weekday activities such as the sewing circle, gymnastic activities, child-care agencies, and reading and discussion groups. Interdenominational co-

operation existed in many different forms, as in the Young Men's Christian Association, the Young Women's Christian Association, the Christian Endeavor Society, and the World's Student Christian Federation. A World's Parliament of Religions was held at the Columbian Exposition in Chicago in 1893. Religiously minded persons found outlets for the reform interest in the cooperative efforts of the Prohibition party, the Woman's Christian Temperance Union, and many other organizations. Interdenominational revival movements aided many of the Protestant churches, under the leadership of such men as Dwight L. Moody in the latter decades of the century.

The greatest intellectual influence upon the churches of the later nineteenth century was the spread of the doctrines of biological evolution. Some of the churches combated these with a reassertion of extreme fundamentalism and the literal interpretation of the Bible, simply denying their validity. Others began to try to reconcile the scientific implications of evolution with religious beliefs, under the leadership of such men as Henry Ward Beecher, Washington Gladden, John Fiske, Henry Drummond, and Lyman Abbott. This battle over evolution symbolized the onrush of secular forces that were weakening the intellectual hold of the churches upon the minds of the people and were making the problems for public education ever more acute.

THE IDEAS MEN LIVED BY

American intellectual life in the nineteenth century continued to borrow heavily from European sources, but it also began to assert itself not only by adapting European importations to American conditions but also by making distinctive contributions that often influenced Europe in turn. In the first half of the century the influence of French humanitarianism remained strong, its ideals of liberty, equality, and social progress continuing to feed American conceptions of democracy. From England came scientific and technological invention, economic individualism, and romantic literature that appealed especially to American middle classes. From Germany came idealistic and transcendental philosophy along with romantic literature. Gradually, the interest in other countries began to spread as immigrants from other parts of Europe flooded into America.

Meanwhile, American nationalism began to assert itself. The decades before the Civil War saw the growth of the feeling that American intellectual life should break the bond with Europe and create modes of expression and methods of thinking more appropriate to the freer conditions of the new American nation. After the Civil War the ideal of nationality was greatly enhanced, but the influence of European thought

continued to be strong, especially as found in the scholarly and scientific ideals of the German universities. As the century drew to a close, American philosophy, literature, and art made distinctive contributions that could only be described as American. The contributions of nearly all the nations of Europe were represented in the work and ideas of immigrants who became American.

World View and Human Nature

Traditional religious outlooks. Throughout the nineteenth century the traditional beliefs in supernatural religion continued to be influential among the masses of people as well as among conservative religious leaders. Christian theism remained the most common conception of the world and of the relation of man to nature. The world of spirit was sharply defined in contrast to the world of matter. God created the world, as described in the Bible. Man consists of a soul and a body, the two elements in him being in constant opposition. Human nature is set off by an impassable gulf from the rest of nature by virtue of the spiritual qualities given to man by God.

The Calvinistic tradition was reasserted in the manner of Jonathan Edwards by such men as Nathaniel Walker, who aided in the foundation of Yale's Divinity School in the early part of the century. Andover Theological Seminary was founded by Calvinists in 1808 to combat the liberal religious trends of Unitarianism, which had appeared at Harvard. In the latter part of the century, fundamentalism was reasserted by such conservative theologians as Laurens Perseus Hickok, president of Union College, Charles Hodge of Princeton, and William G. T. Shedd of Union Theological Seminary. Outside of the orthodox churches the popularity of supernaturalism in various other forms was reflected in such movements as spiritualism, theosophy, and Christian Science.

Liberal religious outlooks. Meanwhile, several efforts to liberalize traditional supernaturalism were being made. One of the most important of these was Unitarianism, which denied the conception of an angry God and of original sin. Unitarians disbelieved the doctrine of the Trinity and emphasized the beneficence and loving-kindness of God, the human qualities of Jesus, and the inherent goodness and perfectibility of man's nature. As expressed by William Ellery Channing, religion became a matter not so much of dogma and theology as of cultivating the ethical spirit of God in the heart of man. It was largely humanistic in tone and urged the individual to seek truth according to the Scriptures and to express his religious convictions in improving society. Unitarianism fed the social reform movements of New England in the early nineteenth century and represented a return to the essentially liberal emphasis that early Protestantism had placed upon freedom of conscience.

Later in the century when science and evolution began to challenge the authority of traditional supernatural religions, several notable efforts were made to reconcile religion with evolution. Some American scholars followed the lead of the European higher criticism in Biblical scholarship and the study of comparative religions. Outstanding were Philip Schaff of Union Theological Seminary, Orello Cone of St. Lawrence University, and James Freeman Clarke. The modernist movement to liberalize the traditional religious outlooks by incorporating the findings of evolutionary science was led by Henry Ward Beecher, Phillips Brooks, Washington Gladden, Lyman Abbott, and, above all, John Fiske. Despite the efforts of fundamentalists to stem the tide of modernism by heresy trials and bitter attacks, the hold of uncompromising supernaturalism was not as strong at the end of the century as it was at the beginning.

Idealism and transcendentalism. Stemming from Unitarianism but adding to it an adaptation of German idealism, an American transcendental philosophy found considerable expression in the early nineteenth-century writings of such men as Ralph Waldo Emerson, Theodore Parker, and Henry David Thoreau. They were deeply affected by the mystical idealism of Kant, Fichte, and Schleiermacher, but they rejected much of the absolutistic and nationalistic qualities of German idealism in favor of an exaltation of individualism that seemed more appropriate to the American temper. Stressing the goodness of God, the transcendentalists emphasized above all the inalienable worth of the individual, who represents in his nature the divine presence of God. Man should be trusted implicitly because the spirit of God exists in the individual soul. This conception of divine immanence in man led the transcendentalists to rely upon human will and conscience as the guide to morality and to attack as evil all political or economic institutions that restrict the activities of man in his efforts to achieve a better society.

In the latter part of the century Hegelian idealism attracted such American philosophers as George Herbert Palmer, Josiah Royce, George Sylvester Morris, George H. Harrison, and C. C. Everett. Idealism became the most influential outlook of American professional philosophers in the last decades of the century, much stimulated by the *Journal of Speculative Philosophy* founded by William T. Harris, superintendent of schools in St. Louis. His influence touched in quite different ways the points of view of Nicholas Murray Butler and John Dewey. Impressed by the idealists' emphasis upon the organic relationship between society and the individual, Dewey was also greatly influenced by the doctrines of evolution and pragmatism.

Evolution and pragmatism. Perhaps the most distinctively American contribution to the intellectual life of the nineteenth century was the development of pragmatism, a philosophical orientation largely based

upon the broad principles of evolutionary theory. The most obvious effect of the theory of evolution was on that religious conception of authority, which centered in the Old Testament doctrine that the world and man are specially created by divine intervention and that by virtue of his immortal soul the human being is a distinctly different form of living being from the rest of nature.

In direct opposition to the religious outlook came the startling theories of evolution, stating that the earth was not created at a moment in time but was millions of years old, that by natural processes the simpler forms of life became more complex, and that man and all living things were branches of a common stock of life. Thomas Huxley and Robert Ingersoll carried the war into the theological camps, and Herbert Spencer applied the evolutionary concepts and the doctrines of the survival of the fittest to the fields of ethics, politics, history, economics, and social development in general.

Not only was religious authority challenged by evolutionary science, but the whole philosophical position of idealism and the "genteel tradition" was attacked by a new philosophy of pragmatism. The original tradition of Calvinism in America and the early nineteenth-century influence of German idealism had led most American philosophers to envisage a monistic universe in which everything had a fixed place in relation to the whole and in which truth was looked upon as uniform, fixed, and eternal. The prevailing conditions of American frontier life, however, with its wilderness to be conquered and its dangers, uncertainties, and constant struggle for existence, had shaped an "American mood" that was out of sympathy with the finalities of philosophic idealism. Established order, routine, and finality became less vital to Americans than initiative, enterprise, and innovation. From the temper of American life and from the example of Darwinism and the sciences, Charles Peirce and William James formulated a pragmatic philosophy that they felt was more appropriate to the changed conditions of life.

Pragmatism looked upon the universe as essentially incomplete and changing; the varieties of existence and of experience were set over against the organic unity and homogeneity of idealism. The appearance of novelty was considered to be a genuine fact of experience, and belief in the immediate experience of human beings rather than appeal to remote authority of a religious or philosophical kind was considered the court of last resort in validating ideas. In other words, truth is not a single and closed body of knowledge that holds good despite all the experience of men; truth depends upon the consequences that occur when men act in certain ways. Truth is subject to change whenever better methods of acting and thinking are devised to meet the exigencies of life.

Inasmuch as law, religion, government, art, and science were thus looked upon as receiving meaning and value from what they accomplish, it was but a step to look upon education as valuable only insofar as it accomplishes what is desired. After the turn of the century, the experimentalism of John Dewey and his followers made it even more difficult for advocates of a completely closed metaphysical system and static body of truth to hold their own.

Learning and Intelligence

Somewhat parallel to the trends noted above, the dominant beliefs about how people learn underwent a marked change in the nineteenth century. During the first half of the century the traditional rationalism of Europe had been manipulated by American writers into a faculty psychology that supported mental discipline as the basis of the learning process. The mind was looked upon as a special spiritual creation quite different in essence from the physical body. The mind thus is a pattern common to all men as distinguished from animals and consists of distinct and identifiable faculties, each governing and directing certain mental powers. In the latter part of the century the faculty psychology came to be challenged by psychological outlooks that rested upon empiricism rather than rationalism and were modeled upon the scientific methods that were becoming so useful in the study of nature. As a result, the learning process came to emphasize specific learnings, according to the interests, freedom, and individual differences of students, rather than a general mental discipline.

Faculty psychology versus experimental psychology. According to faculty psychology, the mind was conceived as consisting of separate, independent, and ready-made capacities, or faculties, such as memory, judgment, reason, will, imagination, and taste. These faculties were looked upon as distinct powers of the mind; hence, they were considered to be merely potential until brought into actuality by training or practice, and the exercise of one faculty was thought to transfer beneficially to other faculties. Development of the powers of the mind had been set up, especially by a Yale faculty report of 1828, as the supreme aim of education, and the classics and mathematics had been looked upon as the best means of bringing about this development of the intellectual powers. For the exercise of the faculties, the form of studies was considered more important than their content. Thus, for example, when the older studies of the school or college curriculum were attacked for the reason that they were not practical or useful enough, their supporters defended them with the doctrines of faculty psychology. They said that the classics and mathematics should retain their position in the cur-

riculum because their form was more valuable for mental discipline than that of such so-called practical studies as the physical sciences and modern languages.

So long as faculty psychology remained the dominating theory of the learning process, the defenders of mental discipline and of the traditional prescribed studies held their position securely. Advocates of the newer subjects, however, attacked the classics, mathematics, and traditional philosophy because they were not sufficiently adapted to the varying interests, capacities, and prospective pursuits of the students. This latter view was increasingly supported by the theories of a newer empirical psychology as the nineteenth century drew to its close and as faculty psychology lost its dominance in the field of the theory of the mind.

The growth of the so-called "associational school" of psychology in Europe had, for example, declared that, in the classification of the processes of the human mind, faculty psychology had distinguished too minutely among different mental powers that actually were not mutually exclusive or independent of one another. Associationism tried to reduce all mental processes to the single process of association. The mind was looked upon as made up of groups of ideas that had become associated in different ways and with varying emphases. Thus, memory, reason, emotion, and invention were conceived not as independent faculties but merely as different ways in which simple perceptions had become associated with other perceptions to form more complicated perceptions and ideas. In Germany, Herbart also attacked faculty psychology on somewhat the same grounds, and his psychology had great influence in America in the closing years of the nineteenth century. Thus, it was believed that *specific* ideas rather than independent mental faculties determined an individual's memory and reason.

Experimental psychology as it developed in the United States gave close attention to the scientific study of psychology and recognized that sensory, motor, and physiological processes greatly affected mental development. As a result of the influence of the laboratory methods of Wundt and the theory of evolution, actual experiments by G. Stanley Hall, Joseph Jastrow, and Edward Lee Thorndike were based on the theory that mind, far from being a separate entity or faculty, is really the functioning of the organism in adjusting its behavior more adequately to its environment. (This school of psychology is sometimes called "functionalism.") In the field of learning, "behavior" became more important than "consciousness." William James said at Harvard that mind is in what it does.

Furthermore, experimental psychology was supported by studies in heredity and original nature conducted by such men as Francis Galton,

James McKeen Cattell, and Edward Lee Thorndike. The startling findings as to "individual differences" as early as the 1880's led progressive educators gradually to emphasize the differing capacities of different individuals and to recognize the need for taking account of these varying abilities and interests in the learning process. As the theories of mental discipline and transfer of training became suspect in view of the new experimental psychology, the nature of each individual began to be looked upon as worth developing in his own way for his own sake; and since the nature of each individual had been found to differ from that of every other, the notion gained strength that each individual should receive special attention through special studies if education were to be adapted to differing individuals.

Social Role of Knowledge

One of the most impressive facts concerning the nineteenth-century United States is the enormous and rapid expansion that took place in nearly all fields of organized knowledge. Few developments had so great or so direct an influence upon the character of American education. Not only were the boundaries of the recognized bodies of knowledge enlarged by the accumulation of great masses of information and facts, but the different fields became subdivided and specialized to a degree never before contemplated. The influence of science, scientific methods, and the evolutionary theory played a large part in this process. Bitter controversies developed concerning the role that knowledge should play in society and in education.

Expansion and specialization of knowledge. Investigation and research added great masses of material to the traditional bodies of knowledge, and in this process many new and relatively independent "subjects" were organized. The older bodies of knowledge were divided and subdivided into ever more specialized elements. A college professor of "natural history" at the beginning of the century took for his field the whole range of organic life. At the end of the century, this had been broken down into the various biological and natural sciences, including botany, zoology, physiology, psychology, paleontology, ornithology, entomology, and anthropology. What had simply been called "natural philosophy" became subdivided into such specialized physical sciences as astronomy, physics, chemistry, mineralogy, geology, meteorology, and physical geography. In the same manner the social sciences were expanded and differentiated into history, economics, political science, sociology, anthropology, ethnology, and geography. Indeed, by the end of the century a scholar could no longer take even the whole of one of these newer fields for his special interest but had to specialize in ever more narrow aspects of zoology, or physics, or history.

This process of expansion and specialization of knowledge was hastened by the attempt to apply the scientific methods to nearly all fields of knowledge, by the influence of the German universities, and by the organization of professional associations of scholars and specialists in the various fields. The success of the scientific method was soon apparent as scientists were impelled by colleges and universities, by business and industry, and by the government to investigate the whole range of natural and physical phenomena. Practical and profit motives were strong, as well as the theoretical impetus. The desire to create better machines for the production of goods, to improve agricultural products, to find better sea lanes, and to develop ocean and overland transportation all played their parts.

Work on metals, oil, and soils was paralleled by geological surveys and exploratory expeditions sponsored by the state and federal governments. The expeditions of Lewis and Clark, Zebulon Pike, and others to the West, the United States exploratory expedition led by Lt. Charles Wilkes, the coast geodetic surveys, the Great Lakes geodetic survey, and other expeditions to nearly all parts of the world led to the amassing of great new bodies of knowledge. The federal government established the National Observatory and Hydrographical Department, the Naval Observatory, a national museum, botanical gardens, and the Smithsonian Institution in Washington. Many states and communities established scientific and historical societies and institutions.

The formation of professional associations of scholars and scientists was highly accelerated. Before the Civil War most of the societies were local in scope, with the exception of such outstanding organizations as the American Academy of Arts and Sciences, the American Medical Association, and the American Association for the Advancement of Science. After the Civil War the national type of association became more popular, and a great acceleration in their establishment took place in the 1870's, 1880's and 1890's. Among the many only a few can be mentioned, for example, the American Philological Association, American Library Association, American Bar Association, Modern Language Association, American Chemical Society, American Mathematics Society, American Historical Association, American Economics Association, American Psychological Association, and American Philosophical Association. In the process of forming associations the principle of specialization was at work, as shown, for example, by the fact that the mining engineers, mechanical engineers, and electrical engineers all formed separate societies within ten or fifteen years.

This wide range of activity was stimulated not only by practical considerations but by the effort to apply the scientific method to fields other than the physical and natural sciences. Scholars in nearly all fields of

the social sciences, language and literature, and the arts were trying to make their work "scientific," to gather detailed information and accurate facts, to classify and describe their phenomena as carefully as the physical scientists were doing in their laboratories. For this ideal many American scholars looked to the German universities for their inspiration. In the hundred years after 1812 nearly 10,000 American scholars went to Germany, and many thousands more were affected by the scholarly ideal of specialized research. The older ideal of broad scholarship ranging over as many fields of knowledge as possible was replaced by the ideal that a scholar should exhaustively explore a narrow segment. Much of this change was undoubtedly required by the enormous expansion in the amount of knowledge, but the German ideal was taken to make a virtue of "knowing more and more about less and less."

The "genteel tradition" versus social responsibility. With the growing importance of knowledge of many kinds it was only natural that there should be differences of opinion concerning the use to which knowledge should be put—indeed, concerning its whole purpose. One outlook held to the ideal that knowledge is valuable for its own sake and has no value beyond its own cultivation. Literature, language, science, history, art, and music are the hallmarks of culture and scholarship and should express the most refined and purest sentiments of human nature. According to this "genteel tradition" the quiet, reserved, and undisturbed pursuit of truth or expression of beauty should not be jarred by the harsh realities of the outside world. Among the poets, essayists, moralists, and men of letters who held to this general view, the romantic interest in "escape" literature, the remote, the sentimental, and the adventurous played a large role. Especially popular in early nineteenth-century New England, the genteel tradition was exemplified in America by such writers as Longfellow, Lowell, and Holmes.

While the belles-lettres and arts of the genteel tradition were likely to be steeped in romanticism or refinement, the sciences could not very well be romantic, but they could and did elevate the ideal of objectivity and social neutrality. Following the lead of the German universities, American scientists and social scientists began to say that "pure" truth and "pure" knowledge are the aim of all research and all study. Truth for its own sake, undefiled by practical applications in nature or in society, came to be the watchword. The corollary was often an idealization of an intellectual elite as the guardian of truth and beauty, the masses of people being considered inherently incapable of entrance into the portals of true scholarship.

In reaction against the exaltation of "culture" the idea grew that knowledge has a social function to perform and should not merely hide away in its ivory tower. This reaction took many and varied forms.

One form was the nationalistic emphasis of the early nineteenth century, which began to glorify the new republic, its ideals, its people, and its setting in a new continent. Much literature, history, and science were stimulated by this nationalistic zeal to turn knowledge and forms of expression to the uses of the new nation. Another form drew its inspiration from business enterprise and industrialism, which joined together to idealize the practicality of life and to insist that knowledge should promote the practical business of living. This stimulus included not only the desire to use technology to improve methods of production but also the individualistic optimism that knowledge is the open-sesame by which the individual may raise himself in the social scale. "Practicality" could mean a generous insistence that the welfare of an industrial society depends upon the application of science to nature, or it could mean a narrow demand that historians and economists defend the profit motive in the interests of the enterprise system.

A third form of the doctrine of social responsibility was the belief that knowledge should improve the welfare of the great majority of the people in a democracy. From the reform movements of the early nineteenth century to the social-welfare movements of the late nineteenth century the demand continued to grow that the test of literature, science, social science, and art should be their functioning in the public interest. Knowledge must not be locked up in its intellectual hideaways; it must not be neutral to injustice and corruption; it must not be confined to an aristocratic elite; it must not defend the privilege and entrenched interests of the *status quo*. Rather, investigation should be undertaken with a view to the improvement of democracy, and its fruits should be spread as widely among the population as possible. Many felt that this democratic view of the social role of knowledge was the greatest contribution of the United States to the intellectual and educational history of the world.

Stimulated by these different views of the social role of the arts and sciences, a great galaxy of scholars and writers produced a prodigious amount of material in the various fields of knowledge, from which American education drew sustenance and had to select elements for emphasis. Differences of opinion as to what should be selected and for what purposes led to many educational controversies.

Language arts and literature. Several developments in the linguistic and literary arts had significance for education in the nineteenth century, only a few of which can be mentioned. First of all, the traditional hold of Humanism gave a continued strength to the classics, but there was no doubt that the ramparts were about to be stormed. In the early part of the century many bitter battles were fought by the classicists in the effort to maintain the superiority of the classical languages and litera-

ture over the modern languages and literature. The classicists used the arguments of the genteel tradition against the modernists, who, interestingly enough, used the arguments of practicality to justify their claims to a position of equality.

Then, as the modern languages gained headway through the century, the classicists and the modernists often joined together to defend the literary tradition against their common enemy and archetype of practicality, the sciences. The battle between literature and science, embodied by Huxley, Spencer, and Arnold in England, was repeated in America as the lines were redrawn. But, despite their antagonism to science as such, students of both the classical and the modern languages stressed the specialized research and "scientific" investigation that had become popular in the German universities. New editions and better translations of much of the great literature of the world were produced, and extensive studies made in philology and literary criticism.

Much more than in the scholarly study of literature were the current trends of thought reflected in the creative literature being written by American authors. Even though the reliance upon England remained very strong, the early nineteenth century saw the rise of a distinctively American type of literature, reflecting the development of cultural nationality, in the writings of such men as Irving, Cooper, Bryant, Poe, Melville, Hawthorne, Emerson, Longfellow, Whittier, Holmes, Lowell, Emerson, Thoreau, and Whitman. Some idealized the romantic retreat from reality (Longfellow, Hawthorne, Cooper, Thoreau, and Melville); others stressed social reform (Whittier, Harriet Beecher Stowe, Emerson, Theodore Parker, and Margaret Fuller). Some expressed great faith in the common people (Emerson and Whitman); others were definitely antidemocratic (Cooper and Melville). Some glorified the "effete" East, for example, the Boston, Cambridge, and Concord writers; others revealed the vitality and rough-and-ready venturesomeness of the West, for example, Mark Twain and Bret Harte. Some defended business and attacked labor (Holmes and John Hay); others attacked business (Charles Francis Adams, Henry Adams, and Walt Whitman).

In the latter part of the century realistic descriptions of the dreadful impact of industrialism and capitalism upon the underprivileged groups were accompanied by a direct appeal for social reform. Outstanding in their reassertion of democratic values against the injustices of big business were such writers as Mark Twain, Edward Bellamy, Hamlin Garland, William Dean Howells, Theodore Dreiser, and Frank Norris. In one way or another they depicted the greed, corruption, and monopolistic methods of big business and took the part of the common people as represented by the farmer and laborer in difficult straits through no fault of their own.

In these and other ways American literature was responding to the call for greater social responsibility. In general, however, it was the "safer" and more refined literature of the genteel tradition that found its way into the schools and colleges of the nation, for educators were dominated by the ideals of scholarly research and purely intellectual virtues, as well as by the conservative political and economic outlooks of the times.

Science and mathematics. The rise of the various fields of physical and natural science to a place of great importance and popularity was one of the principal intellectual events of the nineteenth century. It may be that the greatest creative discoveries were made by Europeans, but the range and quality of American science were rapidly increasing. The establishment of the *American Journal of Science* in 1818 by Benjamin Silliman signalized the appearance of a genuinely American science. The course of the century saw a rapid rise in the popularity of scientific findings in ornithology, botany, zoology, physical geography, chemistry, physics, geology, mineralogy, meteorology, and mathematics.

Scientists reflected the varying outlooks concerning the social role of science. In the early days of the century many scientists either resisted the idea of evolution or tried to show that there is no essential contradiction between evolution and religion. Such attempts were made by Louis Agassiz, Benjamin Silliman, James Dwight Dana, and Asa Gray. In the latter part of the century those scientists who were impressed by the scholarly ideals of the genteel tradition ignored the question and went about their work, while those who felt strongly about the matter joined with Andrew Dickson White, Robert Ingersoll, John William Draper, Edward Livingston Youmans, and Huxley and Spencer in defending evolution and arguing for the practicality of science against the intellectual isolationism of academic literature. Gradually, by virtue of the weight of scientific research the academic war between science and literature was being decided in favor of the former. Scientific studies were accepted in the curriculum by college and school faculties, at first in a subordinate position, then on a basis of equality, and finally in a dominant position.

The scientific movement was one of the most important factors in breaking down the barriers between the knowledge of the intellectual and the knowledge of the common people. Especially in the early part of the century, the interest in scientific facts amounted to a popular rage. Societies for the dissemination of scientific knowledge sprang up in all parts of the country, and thousands of people were brought into closer touch with the marvels of science through mechanics' institutes, libraries, popular books, and lyceum lectures. Scientists themselves, how-

ever, were divided concerning this movement, and some preferred to think of science as the highest function of an intellectual elite working in their laboratories at the universities.

Social sciences. Borrowing much from the scientific influence but making much headway in their own right, the various social sciences also expanded enormously during the nineteenth century. They followed the general pattern of specialization and were subdivided into such separate disciplines as history, economics, political science, sociology, and anthropology. The American Revolution was the object of much interest among historians of the early decades of the nineteenth century, and biographies of Revolutionary leaders were also popular. Histories of the various colonies and states also continued to be written by some historians, while the new spirit of nationalism led others to turn their attention to the history of the United States in general. Of these George Bancroft, above all others, showed the effects of a democratic nationalism in his works, siding with the people against autocracy and insisting that the democratic forces of America had divine blessing.

In the middle decades of the century the historians expanded their efforts and began to write on a wide variety of topics. William Hickling Prescott wrote his history of the Spanish conquests in the New World, and Francis Parkman studied the French colonizing of the New World. In the closing days of the century evolutionary thought began to affect the writings of Herbert Baxter Adams at Johns Hopkins, John William Burgess at Columbia, Henry Adams at Harvard, and Frederick Jackson Turner at Wisconsin. The way was being paved for the "new history" of James Harvey Robinson, Charles Austin Beard, and Carl Becker.

Economics, political economy, and political science began to receive their share of special attention. The Revolution and the Civil War stimulated a great deal of writing on the political nature of the new nation. In the later decades of the century the political economists were divided on the conflict between individualism and social reform as stimulated by Darwinism and by the new industrial conditions of life. John William Burgess and John Bates Clark took the side of individualism; and Richard Theodore Ely, Simon Patten, Edmund J. James, Thorstein Veblen, and J. Allen Smith took various approaches to the problem of social reform.

Sociology and anthropology became distinct "sciences" during the nineteenth century. In the middle decades an effective attack upon "racist" theories of anthropology was made by Charles Loving Brace, whose scholarly works expressed belief in a common race, there being no inherently "superior" or "inferior" races. Lewis Henry Morgan's studies of ancient societies and the American Indians were very influential, and Franz Boas at Columbia laid the groundwork for modern

anthropology. Sociology gained great influence in the later decades of the century, especially from the influence of evolutionary thought. Some sociologists, like William Graham Sumner at Yale, Albion Small at Chicago, and Franklin Henry Giddings at Columbia, looked upon social evolution in Darwinian terms of virtually automatic and uncontrolled change; others, like Lester Frank Ward, E. A. Ross at Stanford and Wisconsin, and Charles H. Cooley of Michigan, emphasized the possibility of controlling and directing the process of social change as a means of promoting the general welfare through social reform.

Music and art. Throughout most of the century American music and art looked to Europe for their sustenance. In the first half of the century increased attention was given particularly to German music as great waves of German immigrants came to America. German singing and instrumental societies were formed, and many civic orchestras began to spring up in New York, Boston, Philadelphia, St. Louis, and elsewhere. French and Italian opera began to be more popular, and Lowell Mason began to adapt European music for American church services.

Meanwhile, a native American music of the South and West began to be popular among the common people, as expressed, for example, in the Negro spirituals, the songs of Stephen Foster, and the patriotic songs of the Civil War period. As the century drew to its close, the increased wealth of the cities made possible more elaborate symphony orchestras, opera, ballet, and theater, most of which still relied heavily upon European sources for inspiration, composition, and musicianship.

By and large the reliance upon European art forms remained dominant throughout most of the century. Whatever indigenous art appeared was likely to be in such "practical" forms as furniture, quilts, and utensils. The outstanding portrait and landscape painters of the latter part of the century were doubtless Inness, La Farge, Whistler, and Sargent. Among sculptors Saint-Gaudens was outstanding.

In the latter part of the century the growing industrialism of the nation created the ugly civilization of factories and factory towns with their smoke, dirt, and crowded dwellings either sprawled over the countryside or regimented in countless rows of identical houses. The growing wealth of great financiers such as Vanderbilt, Corcoran, and Frick led to huge investments in private collections of art work and the gradual establishment and expansion of civic and public museums of art, such as the Metropolitan Museum in New York. The Centennial Exposition in Philadelphia in 1876 set out to show the development of American arts and sciences in a hundred years of national existence, but most of the fine art products were imported from Europe, and American genius was principally displayed in the industrial products of factory, mining, and agriculture.

In architecture the dominant trend in public buildings during the century was an adaptation of Greco-Roman styles as expressed in the Capitol in Washington and the various statehouses throughout the nation, with their domes and classic pillars. The classic revival also influenced bank buildings and other edifices that were intended to impress the observer with their permanence and durability. A new note, however, was sounded in the last decades, when Louis Sullivan began to preach the doctrine that American architecture should follow the function for which it was designed, rather than the dictates of European tradition. In his efforts to achieve this ideal at the Columbian Exposition at Chicago in 1893, he was defeated by the traditionalists, but modern design in American architecture was heralded by a few "skyscrapers," such as the Wainwright Building in St. Louis and the Prudential Building in Buffalo. These, to Sullivan, more nearly expressed the American spirit than did the classic columns of Europe; but they were still the exceptions, and the idea of planning American art forms to fit the new needs of a new society had yet to await realization. American life had expanded so rapidly that the matter of functional design had been lost in the shuffle. In this respect, American education revealed many parallels.

CHAPTER XVII

EDUCATION IN NINETEENTH-CENTURY AMERICA

ORGANIZATION AND CONTROL OF EDUCATIONAL INSTITUTIONS

American education in the nineteenth century reflected many of the cultural trends and tensions that were an essential part of the country's maturing. In the process of becoming a nation, the United States was being torn by all kinds of difficulties, though possessing a high spirit of confidence and optimism. Education shared these difficulties and these optimisms. When Americans decided that political democracy was to be their form of government, by and for everyone, they also decided that they would provide an education for everyone. When Americans decided that government should expand its functions for the benefit of all the people, they naturally turned to public education as one of the most important of governmental functions. When Americans decided that they must become and remain a united nation, they turned to the public schools to help achieve their goals.

American education was caught up in the conflicts and controversies that marked these decisions. Shall we give everyone an equal opportunity for life, liberty, and the pursuit of happiness? Let the schools help. Shall we give everyone a chance to make a better living? Let the schools help. Shall we provide a haven for the oppressed peoples of the world? Let the schools help to make them Americans. But it was not as easy as all this. Many Americans felt that only a relatively few were able to profit from education, and therefore they fought against the establishment of public schools. Many Americans felt that working people should not be allowed to rise too rapidly out of their inherited places in society, and therefore they fought against the secular public schools. The trend, however, was unmistakable. The forces of democracy, industrialism, humanitarianism, secularism, and an expanding population all pointed to the establishment of something new under the sun, a free public school system dedicated to the proposition that equality of educational opportunity is essential for the achievement of a truly democratic society.

The Public School Idea Wins

The idea of a public school system supported at public expense to achieve democratic purposes was not a completely new idea, as we have seen, but it had not yet been fulfilled in any country in the world at the beginning of the nineteenth century. The United States took up the idea and pushed further toward its achievement, despite notable shortcomings, than any other country had done by the end of the century. This was not accomplished without bitter struggles and controversies. In general, the public school idea was promoted by middle-class liberals, social and religious reformers, and humanitarians, by the labor movement and working classes of the cities, and by the organized agrarian and Populist movements during the latter part of the century. In general, the public school idea was fought by social, political, and economic conservatives of all classes, by industrial and business interests that included large taxpayers, by the southern aristocrats, and by certain religious and non-English-speaking groups who saw a threat to their private control of religious and foreign-language schools.

Private versus public control. The real battle began with the upsurge of democratic ideals in the Jacksonian era of the 1820's and 1830's and was waged hotly for three or four decades until the legal principles of public control were won. The battle continued in the last decades of the century as the movement to put the principles into action gained momentum. The main argument in favor of public schools was that the fortunes of a democratic society depend upon a free and equal opportunity for all the children of all the people to develop themselves to their fullest capacity. Not only do the state and society depend for their welfare upon such a school system, but also involved is the individual's chance to make something of himself and rise out of whatever unfortunate circumstances he may have inherited. Only by providing free schools at public expense can these social and individual aims be achieved, the argument went, and only by providing secular schools free from sectarian religious doctrines can the principle of separation of church and state be maintained so as to avoid the difficulties that most European countries experienced with established state churches.

The main arguments against public control of schools were that private interests and initiative are undermined by public schools and that the wealth of the privileged and able classes of society should not be taxed to provide an education for the poor and ignorant classes of society, who cannot profit from such education. Education should properly be reserved for those intellectually able to profit from it and financially able to pay for it. It was assumed that there is a natural and high correlation between intelligence and income. Furthermore, many re-

ligious groups argued that secular and therefore "godless" schools would destroy the moral and religious foundations of society and would in fact prejudice the financial endowments of private and religious school systems already established. Within this framework of argument the political, economic, and legal struggles were carried on at a high pitch of intensity throughout most of the century.

The transition from the private and parochial school idea to the public school idea was a difficult one and had different manifestations in different parts of the country; but no matter how different the situations were there were three crucial arenas in which the battle had to be fought. First and foremost was the struggle to achieve the principle that truly public schools must be free to all children and therefore must be supported by general taxation. This was the hardest of all to win, for it meant that the taxpayers would be obliged to dig into their pockets for returns that were not always immediately visible. Second, the fight to broaden the scope of the administrative unit of control and support from the local district to a state-wide basis had to be won in order to provide decent schooling for all the children of a state. Third, the public schools had to be freed of sectarian religious control if they were to strengthen the common bonds of democracy among all people rather than divide them on ideological grounds. Any one of these battles would have been hard enough to win separately. When they were combined, the task assumed gigantic proportions. But the battle was won.

Private versus public support. The principal achievement of the nineteenth century was to destroy the traditional notion that free education should be provided only for the poor and underprivileged and to establish the conception that free education should be designed for everyone irrespective of financial status. At the beginning of the century the most common plan, outside of New England, was to provide education under private auspices, charging fees and tuition for those who could afford to pay, and offering free education on a charity basis for those who could not afford to pay. Very often the opportunities for charity education were surrounded with such requirements as that the parents of underprivileged children had to declare themselves paupers in order to take advantage of free educational opportunities for their children. Thus, free education meant private education connected with charity and the stigma of pauperism. In several of the middle-eastern and southern states this pauper conception of free public schools was written into the state laws or constitutions. Public education, being free, was consequently considered to be pauper education.

The reformers and humanitarians therefore had two major tasks to perform. They had to combat the ideas that free education was only for the poor and that public education was only for the poor. They took the

only way out which they believed consistent with a democratic conception of society by insisting that free and public education could be achieved only if common schools were supported at public expense and were therefore open equally to all economic and social levels of the population. They went to work to change the laws and to get communities and state legislatures to provide the funds for free public schools. The Jeffersonian Republicans, the Jacksonian Democrats, the New England liberals and humanitarians, and the labor and Populist movements all worked in their various ways for these ends.

As noted in an earlier connection (see pages 368 to 369), schools had been supported in a large number of ways, including tuition, rate bills, endowments, bequests, gifts, lotteries, licenses, and taxes. The task of the public school enthusiasts was to replace all the special forms of support with direct taxation sufficient to meet the full needs of public schools for everyone. This was, of course, the most difficult task, for it meant spreading the burden of support for public schools among all the people, even among those who paid taxes even though they had no children in the public schools. To win this battle required all the talents and energies of public-spirited persons throughout the whole range of public and private life. Two types of indirect public support eased the way into direct support, namely, federal grants for education and permanent common school funds in the various states.

Considerable indirect public support for public schools came from the federal government through grants of land and money to the states. It is estimated that nearly 150,000,000 acres of public land were given by the federal government to the states, the income from which was used for educational purposes. More than half of this amount came from grants of the sixteenth section of each township under the provision of the Ordinances of 1785 and 1787 (see pages 366 to 368). When Ohio was admitted to the Union in 1803 as the first state to be carved out of the old Northwest Territory, each township in Ohio was granted the sixteenth sections to be used for common schools under the control of the township. When Illinois was admitted in 1818, the state was given control of the sections for use within the township in which it existed; and when Michigan was admitted in 1837, the sections were turned over to the state for use wherever the money was needed in the state. Later on, several states of the West where land values were low received two and even more sections in each township for common schools.

During the course of the century several other types of federal aid were devoted by the states in their own ways to public schools. For example, the so-called "5 per cent fund" was the result of an agreement whereby the federal government gave to a state 5 per cent of the proceeds from the sale of public lands within that state, if the state did not tax the

federal land within its boundaries. Other grants included salt lands and swamplands that were given to the states for improvement and sale, the income from these often going to education. Likewise, the Surplus Revenue Deposit Act of 1837 distributed among the state treasuries a surplus of \$28,000,000 then in the federal treasury. This was apportioned on the basis of the number of Congressional representatives each state had in Congress. The Internal Improvement Act of 1841 also benefited many states, for they interpreted "internal improvement" to include the building of schoolhouses, along with roads and bridges.

Higher education also profited from federal aid in the form of the seminary grants of an entire township for each state to be used for higher education. All states received these grants except the original 13 states, Vermont, Maine, Kentucky, and Texas. Much more important for higher education in the long run was the Morrill Act of 1862 and later supplementary grants, which gave large amounts of public land to the various states for the establishment of agricultural and mechanical colleges. These were the so-called "land-grant colleges" (see pages 491 to 492). Also, the Hatch Act of 1887 provided additional federal funds to the land-grant agricultural colleges to promote scientific research in affiliated agricultural experiment stations.

The other important indirect form of public support for education was the permanent school funds, the income from which was to be used by the states for the operation and maintenance of common schools. The principal of these state funds was usually made up of the money derived from the various federal grants just mentioned (except the seminary and Morrill grants), fines, property forfeitures and escheat, and sometimes a mill tax on property. Great hopes were held out for these funds by their advocates in the early days; they even evoked the objection from opponents that they would produce far more than the states would ever need for their schools and that therefore the states were squandering their money. As it turned out, however, the funds generally produced a pitifully small proportion of the money needed for public schools as the school systems expanded to meet growing needs. In some states they now produce less than 1 per cent of the annual school expenses, and in no state do they provide more than 20 or 25 per cent. Mismanagement of the funds, embezzlement, poor investments, and, above all, the growing need for larger and larger outlays of money meant that the funds fell far below the original expectations. They did help, however, to establish the idea that public funds should be used for public schools.

During the 1830's and 1840's the principal struggle for public support of schools shifted to the problem of direct taxation. There were two stumbling blocks. One was the practice of free, charity education for poor children; this meant that a public school was a pauper school. The

other was the use of rate bills, by which the public schools levied a special tax upon those parents who had children in the schools. The more children of a family in school, the more the parents paid to supplement the meager funds derived from taxation. This, of course, imposed a greater burden upon the underprivileged groups, who could not afford to pay and who therefore could not send their children to public schools. The battle raged during the middle fifty years of the nineteenth century but was virtually won by 1875 in nearly all states.

In general, the laws concerning pauper education and rate bills had to be altered or wiped off the statute books and new laws passed. Although the process varied in many states, three stages of development were fairly well marked. In the early stage the best that many states could do was to pass laws permitting local districts to tax themselves for schools if the people voted for it. This local option in some cases took the form of levying taxes only upon those who desired to be taxed and in other cases of taxing everyone if the vote so determined. A second stage appeared when the states passed laws offering state aid as an inducement to local districts to tax themselves and giving state aid only to those districts which did tax themselves. Finally, the battle was completely won when the states passed laws compelling all local districts to tax themselves up to a certain amount for the support of public schools.

When this final stage was reached, the vast resources of the real-property tax were at the disposal of public education, and in time it came to carry the greatest burden of public school support. Approximately three-fourths of all public school funds in the United States came from local property taxes, and the rest was made up of state taxes (on inheritance, corporations, sales, and income), federal aid, and permanent school funds, in that order. In the nineteenth century the great task was to establish the principle and practice that direct taxes should be used for public schools. In the twentieth century the great task was to broaden the matter of school support from a state-wide to a nation-wide basis, in order to give more equal educational opportunity for all children of the nation no matter in what state of the Union they might happen to live.

Decentralized versus centralized control. In order to achieve greater equality of educational opportunity for all children by means of genuine public support, it seemed clear to educational reformers that the inherited district system of local control needed to be revised in the direction of a more highly unified and centralized state control. In an earlier connection it was noted that the eighteenth century produced a trend toward more local and decentralized control, culminating, for example, in the Massachusetts law of 1789 (see pages 364 to 365). Now the nineteenth century witnessed a reversal of that trend as the reformers struggled for

greater state control. In other words, there have been in America two authentic traditions of educational control, one leading to decentralized and local administration, the other leading to more centralized control as represented in county, city, and state administrative units.

As the great westward migrations took place in the nineteenth century, the people from New England took with them to the West their tradition of district control and the people from the South took with them their tradition of private, religious, or county control. Under the frontier and agrarian conditions of the West, these traditions seemed adequate for a time when there were no strong state governments. However, it soon became apparent that the district system was extremely limited in its ability to provide adequate schools for all. Despite the great loyalties to the district school engendered among the American people and their belief that it was more democratic than a more centralized form of control, the trend of the times was toward widening the size of the community that should be organized for educational purposes. That the community should be the state rather than local units seemed clear to those who recognized the needs for a genuine democratic education in the new industrial society of the nineteenth century.

The effort was therefore made to induce the various state legislatures to pass laws taking into their hands the final authority concerning public schools and delegating their authority to the county, city, or district units for administrative purposes. This right had not been assigned specifically to the states by the federal Constitution but rather was left to them by inference from the general-welfare clause and the Tenth Amendment. Thus, by public agitation, by laws passed in the legislatures, and by legal decisions in the state and federal courts, it was generally established by the last quarter of the century that the states constituted the final legal power in public education. Smaller units operated therefore under the enabling laws of the states and at the direction of the states.

The states then began to set up organizational systems to carry out the laws of the legislatures and to allocate and supervise the distribution of state funds to the local units. In some states, beginning with New York in 1812, a state superintendent of public instruction was established as the chief school official for the state. After a good deal of pulling and hauling and false starts in which the office was created, abolished, and created again, it became fairly common and fairly well established in most states by the end of the century. Then, as the century wore on, it became necessary to establish state departments of education, analogous to state departments of finance and highways, to take over the added tasks of enforcing school laws, publishing reports, supervising schools,

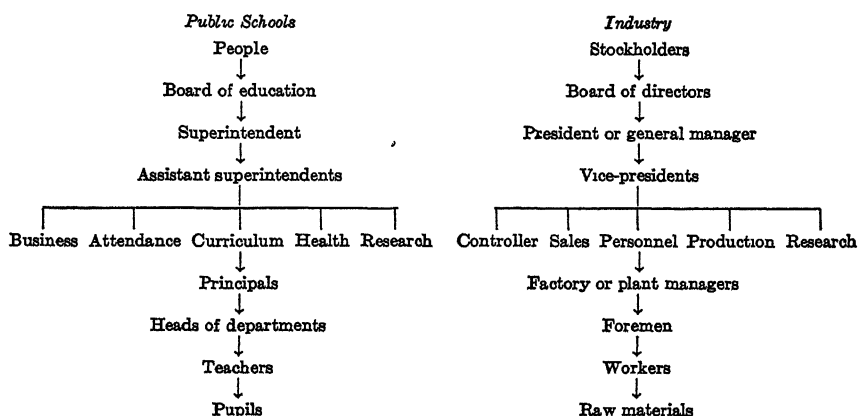
and establishing minimum requirements for taxation, qualifications of teachers, building codes, and courses of study.

In the middle decades of the century, it became clear that the states needed larger units of administration and organization than could be achieved under the local autonomy of the district system. So the county system of administration was commonly adopted in which a county superintendent of schools often operated in connection with a county school committee or board of education. Functioning as the chief executive officer of the county, which was a legal subdivision of the state, the county superintendent carried out the state laws in his county, gathered data for the state, supervised local school officials, distributed the state funds, and aided in the collection of school taxes.

A similar process took place in the cities as they grew in size and as the prospects of great numbers of autonomous school districts, each with tax-levying functions, seemed inappropriate to the demands of modern city life. The states began to require the cities to establish boards of education to conduct the affairs of the city systems under the leadership of a city superintendent of schools. Beginning in the 1830's in such cities as Buffalo, Louisville, Providence, St. Louis, and Springfield, Mass., the movement spread until most cities of reasonable size had established unitary systems by the end of the century. Thus, in another respect, the old face-to-face handling of school problems by the people in their town or district school meetings or by elected school committeemen was no longer feasible under the conditions of city life where thousands were to be served by the public schools.

Consequently, the modern patterns of city school administration began to appear. At first the boards of education tried to keep in their own hands direct control over the various activities of the school system. The members of the board who were citizens, elected by the people or appointed by the mayor, tried to handle directly the many details of administration through standing committees on instruction, curriculum, attendance, finance, buildings, and the like. As the school systems expanded in the later nineteenth century, it became increasingly evident that such procedures were extremely inadequate and inefficient. The demand for efficiency and expertness led to a greater reliance upon the superintendent and his staff of administrative officers. It was natural to turn for a model to the contemporary industrial and business type of organization, which was being praised for its efficient management of large scale industrial operations. Recognizing and fearing the inexpertness and even incompetence of many teachers, administrators felt it logical to keep a high degree of authority and supervision in their own hands rather than trusting too much to the relatively poorly trained teachers.

It was therefore generally agreed that the board of education should confine itself to matters of broad educational policy representing the public and the community and should leave to the superintendent and his staff the day-to-day execution and administration of the board's policies. The superintendent was usually elected by the people or was appointed by the board of education, and he in turn chose his staff and the teachers with the approval of the board; drew up the budget for approval of the board; and supervised directly through his staff the operation of the system. Borrowing from the industrial pattern of the times the superintendents saw a direct analogy in the industrial ideal, the board of education being considered equivalent to the board of directors of an industry, the superintendent and his staff equivalent to the management of an industry, and the teachers equivalent to the employees. The analogous charts of centralized authority in the minds of many school administrators of large school systems looked something like this:



Obviously, such a chart is only approximate and partly facetious, but it does represent something of the attitude toward the authority of administrative officials in comparison with that of teachers. It also reflects the line-and-staff idea, according to which orders were issued in the superintendent's office at the top and carried out successively down the line to the teacher. In this kind of administrative organization it was only natural that the superintendent often felt himself more closely allied in spirit and outlook with the board of education than with the teachers as a group. Prestige and salaries went down in direct proportion to the level at which one found himself on the chart. The superintendent and his staff could not help thinking of themselves in industrial terms as belonging to the employer group and of the teachers as their employees.

Such a system obviously was efficient and did great service in a time of rapid expansion and much confusion in American education. Modern

professional thinkers in the field of school administration are beginning to wonder, however, how democratic it was. They are beginning to question whether efficiency should be as high an ideal in an educational institution as it is in an industrial institution. With the improvement in the qualifications and training of teachers, it has more recently been asserted that teachers should begin to play a larger role in the professional policies and conduct of their school systems as a means of achieving greater democratic participation of all persons directly concerned with the educational enterprise.

Although the American people were willing to take great strides in the greater centralization of public education into county, city, and state units, they were not willing to extend the principle to the federal, or national, basis. It seemed clear that the federal government had the right to provide educational facilities for military purposes; therefore, the military academy at West Point was established in 1802 for the training of army officers, and a similar institution for the training of naval officers was established at Annapolis in 1845. Likewise, the federal government assumed the responsibility of education for Indians on their reservations, under the Office of Indian Affairs in the Department of Interior, and for a while gave special assistance in the education of former Negro slaves, under the Freedmen's Bureau established in 1865. In general, however, the functions of the federal government were limited to the extensive federal grants already mentioned. This meant that the states were willing, even eager, to receive financial support and aid from the federal government, but they were not willing to have the federal government extend its control over the general educational processes. Several bills were introduced into Congress in the 1870's and 1880's proposing direct federal support for general education, but they were never well received.

It was recognized, however, that the federal government should share in the field of national education in some measure. Consequently, a federal Department of Education was established in 1867. Fearing that such a department might get out of hand, several states raised objections, and the separate department was transformed into an Office of Education within the Department of Interior. In 1870 it became the Bureau of Education. Despite its change in name, its function remained primarily that of collecting information and statistical data, conducting research, and disseminating information concerning the status and progress of American education. Henry Barnard was the first United States commissioner of education, followed during the nineteenth century by John Eaton, N. H. R. Dawson, and William T. Harris. During a century when France and Germany were building strong national systems of education, the United States was unwilling to take any steps that would

seem to put very much control in the hands of the national government. Financial aid for special purposes, especially for vocational education, was considered appropriate, but not general federal control. The forces of decentralization were too strong for that.

How the Battle Was Won

The problem of breaking away from the inherited English tradition that schools should be controlled and supported by private or religious agencies was at bottom one to be solved by arousing public opinion to demand public schools. In 1800 most people believed that education was a matter of private initiative or church responsibility and that only the financially able were entitled to education. Then the humanitarian and philanthropic idea gained currency that poor children should have a better chance for a rudimentary education. Some people believed that free education for the poor should be expanded by the churches, by secular charitable agencies, or at public expense. The churches therefore began to provide charitable education for the poor, free school societies were formed to extend free education for those poor children not served by the church schools, and the states began to pass laws for free schools for poor children.

Various types of school societies engaged the efforts and received the contributions of many philanthropically minded persons. They sought individual contributions, formed associations, and established schools. Some of these societies had special interests in mind and were direct outgrowths of similar societies in England. In the 1820's, infant school societies were formed in Boston, Philadelphia, New York, and other cities to provide free instruction for poor children below the ages of seven or eight years. Sunday school societies were organized in similar cities to give the rudiments of secular instruction to poor children on Sundays, but the churches soon took over the Sunday school idea and made religious instruction the principal aim. Monitorial school societies on the model of the Lancasterian schools in England gained widespread popularity because of the relatively cheap cost of instruction for many pupils. These societies helped to show that education was a possibility for the ordinary people.

Meanwhile, a number of "free school societies" grew up in Baltimore, Washington, Philadelphia, Providence, Albany, New York, and elsewhere to consolidate the efforts within the cities to provide free schools for poor children. The most famous was the Free School Society of New York City organized in 1805 by Mayor DeWitt Clinton and other prominent citizens. The society solicited funds, built schoolhouses, trained and paid teachers, and in fifty years had given instruction to more than a half a

million children; thereupon, it turned over its assets to the New York City public schools, which had begun to appear in the 1840's.

As democratically minded persons began to observe the activities of these free school societies in the first two decades of the nineteenth century, it began to occur to some that the distinction between private education for the well to do and charity education for the poor produced an unfortunate and invidious distinction inappropriate for a democratic society. Therefore, from the 1820's on, many groups began to agitate and work for free public schools open equally to all. The enlightened middle classes and the labor groups provided the backbone of this movement, which gained headway against stiff opposition in the 1830's and 1840's.

Organizations were formed to this end, notably the American Institute of Instruction in Boston, the Pennsylvania Society for the Promotion of Public Schools, and the Western Academic Institute in Cincinnati. Such agencies for general diffusion of popular knowledge as the American Lyceum and the many mechanics' and workingmen's institutes took up the cause. In the early decades of the century, labor organizations and labor conventions in New York, Philadelphia, and elsewhere added their voices to the clamor for public schools free from the stigma of pauperism and supported by public funds. The American Federation of Labor from its organization in 1881 onward has had a consistently effective record of energetic advocacy of public education.

Leaders in the public education movement came from the middle social classes, who had already had the advantages of educational opportunities, but they could not have achieved their aims without the social support of the working and laboring classes, who made their strength tell at the polls. Many labor organizations in city and state elections favored those candidates who stood for public education. The important role of labor in this struggle has often been overlooked by writers on the subject, who have consciously or unconsciously played down the efforts of the unnamed and unknown supporters in the ranks of labor. The contribution of middle-class leaders was great indeed, but there is enough credit and to spare for all.

New England. As might be expected from its long interest in public education, extending back to the laws of 1642 and 1647, Massachusetts soon became the scene of active agitation for state control and support of public schools. James G. Carter and Horace Mann took the leadership in this movement. They persuaded the legislature to establish a state board of education in 1837 and a school fund to aid local units in the support of schools. Carter argued long and hard for the establishment of public high schools and normal schools.

Through his position as secretary of the state board of education from 1837 to 1848, Horace Mann was able to put into effect a program of state support for public high schools, state normal schools, and increased support for common schools. He strengthened the ideal of state organization and supervision of schools as against the decentralized district system, raised teachers' salaries and improved their training and qualifications, lengthened the school year, and improved the standards of school buildings. Above all, he acted as a publicist and awakener of public interest in state schools through his extensive lecturing and writing, his 12 annual reports, and his editing of the *Common School Journal*. His influence extended far beyond the confines of Massachusetts as a result of his travels and conferences and the public attention that his activities received.

Somewhat the same process took place in Connecticut and Rhode Island. Thomas H. Gallaudet and Henry Barnard were active in Connecticut in establishing a state board of education, for which Barnard acted as secretary from 1838 until it was abolished in 1842. Barnard then went to Rhode Island for 4 years to organize the work of its new state board of education and then returned to Connecticut. For many years thereafter, as editor of the *American Journal of Education* from 1855 to 1882 and as the first United States commissioner of education from 1867 to 1870, he was a great influence in raising the standards of professional education.

Middle states. Stimulated by the democratic forces of the early decades of the century, New York State passed a school law of 1812 that undertook to establish a state system of common schools under a state superintendent of schools, the first in the United States. This represented a dual system, for the University of the State of New York under the Board of Regents had been established in 1784 to take responsibility for secondary and higher education. The law of 1812 provided for school commissioners to be elected in each town and school trustees to be elected in each district. Teachers' salaries were to be paid by town taxes, which were to be matched by aid from the state school fund, such moneys to be allocated to local districts upon the basis of the number of children aged five to fifteen years. Local districts were to raise money by taxes to build schools and operate them. In addition, rate bills were to be levied upon parents according to the number of children they had in school.

This system was abolished in 1821 through the efforts of conservative forces, but the struggle continued. For example, a convention of workmen in New York City in 1829 agitated for greater state support of schools "to insure the opportunity to every individual of obtaining a competent education before he shall have arrived at the age of maturity."

The state system was restored in effect in 1851, and by 1867 the rate bills were abolished. From then on, the public school system rested entirely upon taxation and state aid.

In Pennsylvania a school law of 1802 established a system by which those children whose parents declared themselves to be paupers were allowed to attend private schools free of charge, the expenses to be paid by the county. Various public school societies protested against this pauper-school act, and again the laboring groups began to bring their weight to bear. The Workingmen's Association of Philadelphia passed resolutions in 1829 and 1830 similar to that of New York City and publicized the attitudes toward public schools expressed by candidates for the legislature. In 1834 the legislature passed a school law establishing public school districts throughout the state, but so many counties, especially in German Lutheran strongholds, opposed the idea of public schools taught in English that the whole system was in danger of collapse. Finally, under the leadership of Thaddeus Stevens the opposition was broken down, and the law was saved. By 1838 a great majority of counties had accepted the law, and a state school system was under way. In New Jersey a similar pauper-school law was rejected, and after 1838 a genuine public school system was made possible.

The South. The movement for public education took hold more slowly in the southern states than elsewhere in the country. Before the Civil War, several states in the South initiated arrangements that had the outward form of state school systems, but the strong aristocratic traditions of private and religious schools stood in the way. "Free" education in the South continued to mean charity or pauper education much longer than elsewhere. The rigid caste distinction between white and Negro and the class distinction between the planter, or owning, group and the tenants and poor whites remained firm by reason of the desire of the upper classes to retain political, economic, and social power. Some of the southern states established common school funds early in the century, and many established state superintendents of schools with concomitant county systems.

Before the Civil War, attention to education for Negroes was pitifully lacking. Some states even had laws prohibiting the education of Negroes in school subjects; most of what could pass for education involved the teaching of skills to Negroes to enable them to do agricultural and semi-skilled work on plantations. During the early reconstruction period under President Lincoln's plans, some of the southern states enacted laws providing for the education of Negroes, and this process went much further during the Congressional reconstruction period from 1868 to 1876.

Such efforts, of course, evoked enormous resistance from the entrenched white classes, for to them the idea of giving education to

Negroes was the height of absurdity and folly. Their conception of the Negroes as an inherently inferior race incapable of intelligence or education made them fearful of the consequences. And, of course, the taxes that would be necessary for genuine public education for all touched them where it hurt most. They looked with suspicion upon the efforts made by Northerners to stimulate education for Negroes in the South. Many northern religious and philanthropic societies sent men and money into southern schools and colleges. The United States government established the Freedmen's Bureau in 1866 to give an over-all supervision to these efforts. Several Negro colleges were established, notably Fisk University in 1865, Hampton Institute in 1868, Atlanta University in 1867, and Tuskegee Institute in 1881. The George Peabody Fund poured money and workers into the South to help pay teachers' salaries, improve teacher training, and build schools.

Despite these efforts, progress was slow in providing public education for both Negroes and whites. After 1876, when the upper-class whites came back into power in the South, many of the laws for public education were either revoked or disregarded. The easiest way was simply not to vote adequate funds for Negro schools. It is true that the economic resources of the South were extremely limited in comparison with those of other parts of the country, but it is also true that the dominant classes made matters even worse by insisting upon a dual system for whites and Negroes, which was much more expensive. Without money to go around, the Negro schools obviously suffered most.

Despite the efforts of some forward-looking Southerners and humanitarian Northerners, the Negro schools continued to be a disgrace in a democratic nation. White teachers received little enough; Negro teachers received a mere pittance. What gains were made came under the leadership of such men as Henry Ruffner and General S. C. Armstrong in Virginia, Calvin H. Wiley and S. S. Ashley in North Carolina, J. K. Jillson in South Carolina, John Eaton in Tennessee, Robert J. Breckenridge in Kentucky, A. G. Brown and Henry R. Pease in Mississippi, and Booker T. Washington in Alabama. Even so, a measure of their effectiveness was the fact that by 1900 compulsory-attendance laws were not to be found in any southern state. Less than half the children in the South actually attended school, and only one out of every 70 who started the first grade ever reached the eighth grade. Other parts of the country were not perfect by any means, but nowhere else did the ideal of equality of educational opportunity fall so short in practice.

The West. In general, the western states developed their systems of public education rapidly and in some respects even outstripped the East. There was no entrenched tradition of private education, and many of the constitutions of the western states carried strong statements or provisions

for public schools when the states were first admitted. In the old Northwest Territory of Ohio, Indiana, Michigan, Illinois, and Wisconsin the Ordinances of 1785 and 1787 laid down the principle of public common schools as a framework for later developments. The settlers from New England and the East carried with them the district system of public schools, and they relatively soon were able to adopt strong state organizations of education against the opposition of Southerners who had settled in the southern regions of Ohio, Indiana, and Illinois. Thus by the 1850's and 1860's these states of the Middle West had made great strides in wiping out the system of rate bills, levying taxes for common schools, and organizing state departments of education. These developments were accomplished through the efforts of such men as Lyman Beecher, Calvin E. Stowe, and Samuel Galloway in Ohio, Caleb Mills in Indiana, Ninian Edwards in Illinois, and John D. Pierce in Michigan.

A similar process took place in the new states of the plains, mountains, and Pacific areas of the trans-Mississippi West. Superintendents were appointed or elected, school funds established, taxes levied, and compulsory-attendance laws passed. Private and religious schools were, of course, predominant in the early days, but these traditions were more easily changed in the freer and more flexible atmosphere of the frontier West. The ideal of equality of opportunity that was so much a part of the development of the West found rapid realization in the public school ideal of free education for all at public expense.

An American System of Schools Takes Shape

Despite variations among states, the nineteenth century was the formative period in which an American conception of education began to appear in fairly clear outline. Whereas most European countries maintained a dual system of schools frankly designed to separate the upper classes from the lower classes, the United States launched a democratic system designed to provide equality of opportunity for everyone to go as far upward as his talents and abilities would take him. Furthermore, this opportunity should be available at public expense under state auspices and should begin at the lowest levels and extend through the university. The so-called "ladder system" meant that secondary education would be a continuation of elementary education and higher education would follow secondary education. The conception of a universal, free, coeducational, and compulsory school system contrasted sharply with the European two-track system of separate schools for upper and lower classes, free education for lower classes in elementary schools, tuition schools for the upper classes in secondary schools, and often separate schools for boys and girls.

Likewise, the American ideal of secular schools free from sectarian control contrasted sharply with the common European practice according to which state churches or authorized religions kept a large measure of influence in the state schools. The principle of secular public schools was not established without a bitter struggle. Many of the states in the early decades of the century authorized public funds to be allocated to religious schools, but some men, notably Horace Mann in Massachusetts, saw great danger in this practice and lashed the use of tax moneys to subsidize sectarian religious teaching. Against the charge that public schools were becoming "godless schools," Mann and others declared that sectarian instruction would wreck the public schools. Mann even had to fight attempts by the religious groups to abolish the state board of education.

In other states, some religious groups tried to block the spread of public schools or to divide public funds among public and parochial schools. In the 1830's, 1840's, and 1850's this was a vital issue all over the country. The public school idea became involved in the anti-Roman Catholic issues brought to a head by the Native-American party in the 1840's and the Know-Nothing party in the 1850's. Although the victory of secular public schools had apparently been won in principle by 1860, the problem has continued to plague American education down to the present time.

Linked to the problem of secular education was the growing idea that the development of a truly democratic nation required compulsory attendance. The great influx of immigrants from nearly every country of Europe in the nineteenth century made the problem of assimilation more acute than ever as the various groups with their different languages, customs, and traditions tended to congregate in isolated groups in the large cities. Hence, the public schools were called upon to provide a means to accelerate the process of assimilation. When voluntary measures did not seem to work rapidly enough, compulsory-attendance legislation began to appear in the state legislatures. The first such law was passed in Massachusetts in 1852, and most other states had taken up the idea by 1900, except in the South. The states, of course, varied in the age limits they set for compulsory attendance, the length of school term during which they required attendance, and the strictness with which they enforced the laws. It had become clear to many, however, that with the great variety of religious backgrounds present in the United States the public schools could not hold to a specific kind of religious instruction. Therefore, the compulsory-attendance idea ran head on into the problem of sectarian and private schools.

The United States ensured freedom for private and religious schools for those who preferred them but proceeded to provide public secular

schools at public expense. This was done on the theory that church and state should remain separate in educational as well as in political functions and that a democratic society requires a universal system of public education. By the middle of the century more students were enrolled in public elementary and secondary schools than in private and religious schools. Once the principle had been established, the public schools expanded enormously and rapidly.

Elementary schools. With the great influx of children into the common schools, it soon became clear that the little one-room district school with its individual teaching methods for a wide range of ages could no longer be satisfactory. The two principal changes in elementary school organization were, therefore, the development of the class method of teaching and the graded system of grouping children by age levels. The unitary district school was gradually divided into primary schools, for younger children from ages five or six to nine or ten, and intermediate, or grammar, schools, for children of ages ten to fourteen. This process, which varied considerably in different cities and states, soon produced a primary school for grades 1 through 4 and a grammar school for grades 5 through 8. In general, the graded schools in which one grade was aimed at one age level became fairly widespread by the end of the Civil War. In the next twenty or twenty-five years the primary and grammar grades were gradually brought together again to produce a single elementary school for grades 1 through 8. By 1900 the 8-year graded school was the most common type of American elementary school.

The development of the graded and class system was doubtless influenced not only by the increased number of children but also by the expansion in the subjects of the elementary school curriculum. It was also influenced by the example of the European systems, especially German, as reported by such Americans as Horace Mann, Henry Barnard, Calvin E. Stowe, John Griscom, and others. A teacher now could specialize somewhat by teaching only one grade and age level by the class method, rather than the whole range of children individually. The graded system, first receiving attention in Boston in the middle of the century through John D. Philbrick, soon spread rapidly throughout the country.

Secondary schools. At the beginning of the nineteenth century the most common secondary schools were the academies supported by private or religious sponsors. There were also a considerable number of Latin grammar schools, principally supported by the towns in New England. The entering age for these schools was usually around ten to twelve years, and the courses were 4 to 6 years in length. As the academies began to emphasize subjects requiring a command of English, they also began to institute preparatory departments to give the younger children a grounding in the fundamentals before they entered the academy

proper. If this process had continued uninterruptedly, the United States might have produced a dual system of schools similar to that of the European countries.

However, in the 1820's and thereafter, the democratic forces in the United States began to demand a type of secondary school that would give at public expense a more useful education for children who had completed the primary and grammar grades of the elementary schools. The public high school appeared to meet this demand and to overcome the growing undemocratic and "class" character of the academies.

The laboring groups had no opportunity for higher education of a more practical and non-college-preparatory sort so long as the Latin grammar schools and the academies remained as the only secondary school institutions. Therefore, in Boston in 1821 an English classical school was established (later called the English high school) designed for boys of twelve years of age or older who were not planning to go to college. It was originally a 3-year high school emphasizing English, mathematics, and social studies of a more practical nature. In 1827 Massachusetts passed a law requiring such high schools to be established in every town of 500 or more families. By 1860 there were over 300 such high schools in the country, most of them located in Massachusetts, New York, and Ohio. In the last years of the century the expansion was enormous; by 1900 there were some 6,000 public high schools enrolling more than 80 per cent of all secondary school students. The public high school, in the process of outstripping the academies, became normally a 4-year institution, coeducational, and designed to prepare for college as well as directly for life.

The expansion in the establishment of public high schools before 1870 was slowed by the opposition of taxpayers' groups and by religious organizations that had large investments in private academies, which they saw jeopardized by public high schools. As has been the case in other great depressions, the industrialists, following the panic of 1873, attacked the idea of public education because of the expense involved, demanded retrenchment in educational budgets, and especially opposed the extension of public high schools, which, they said, made the workers dissatisfied with the prevailing wage scale. Moreover, school boards were uncertain as to whether they had the legal right to levy taxes for the support of high schools. In the 1870's, however, a series of judicial decisions in Michigan, Illinois, and elsewhere laid a sound legal basis for the development of public high schools.

The most famous of these decisions was the Kalamazoo case, decided in the supreme court of Michigan in 1874. The complainants had sought to restrain School District No. 1 of Kalamazoo from levying taxes to support a high school and to determine the right in general of school

authorities to support free high schools and to offer foreign-language instruction. The complainants admitted the right of the state to establish common schools but argued that secondary education was generally agreed to mean instruction in the classics and modern languages and was therefore intended to be an accomplishment of the few to be paid for by them; secondary education did not include practical education for all to be supported at public expense.

The court decided against the complainants, however, stating that the legislation and policy of the state had always been intended to furnish not only the rudiments of education but advanced education to everyone, poor and rich alike, as a practical advantage and not as a matter of culture for a few wealthy persons. Justice Cooley cited as precedents the Massachusetts laws of 1642, 1647, and 1787, the Ordinance of 1787, the territorial legislation of Michigan in 1817, Michigan school laws of 1821, 1827, and 1833, and the Michigan constitutions of 1835 and 1850. Inasmuch as the intent in these was to establish a complete system of education, the court found it unthinkable that the state could legally provide elementary and university instruction but that parents would be obliged to send their children abroad or pay tuition in private schools in order to obtain preparation for the state university. The clear legal right of the school board to levy taxes for public high schools was affirmed.

With the legal basis clear, local school boards felt free to establish high schools as the demand arose. State legislatures were also encouraged to pass legislation permitting local boards to proceed, to offer state aid to those districts which did establish high schools, and finally to compel high schools to be established in certain districts throughout the state. By the end of the century the high school had taken its place as the normal continuation of the elementary school.

Higher education. The nineteenth century witnessed the beginning of the democratic experiment in higher education, no less than in elementary and secondary education. No other country tried to establish so many institutions of higher education. Almost every religious denomination was active in founding colleges as a means of spreading their religious doctrines as well as of providing a general education for the youth of the land. The most active denominations were the Presbyterians, Methodists, Baptists, Congregationalists, Roman Catholics, and Episcopalians. They worked individually, and they worked jointly in such organizations as the Society for the Promotion of Collegiate and Theological Education at the West. Professor Tewksbury found that 182 permanent colleges were established before the Civil War, along with dozens more that died after a shorter or longer time.

Despite the prevalence of the theory that higher education should be under religious control, the movement for state universities that had begun in the late eighteenth century gained increasing momentum in the nineteenth century. Borrowing from French Enlightenment ideas, many humanitarians felt that the doctrine of democracy required public higher education as well as public lower education. The most decisive move was taken when the democratic forces tried to gain control of Dartmouth College. When John Wheelock became president in 1799, he tried to cast off the more conservative political and religious doctrines of his father as predecessor. His Jeffersonian Republican ideas brought him into conflict with the Federalist board of trustees. The board of trustees ousted Wheelock in 1815, whereupon the Republican state legislature passed a law in 1816 converting Dartmouth into a state university, adding 11 new members to the board of trustees, and appointing Wheelock as president of the new Dartmouth University. The old college refused to accede to this innovation, and the two institutions tried to exist alongside each other for a year or two. The old board of trustees brought suit in the New Hampshire supreme court to recover control of the college, but their plea was denied. They therefore retained Daniel Webster to appeal the case to the United States Supreme Court in 1818.

In the famous Dartmouth College case of 1819, Chief Justice John Marshall wrote the decision reversing the New Hampshire supreme court and declaring the legislature's Act of 1816 to be unconstitutional. The Republicans had argued that, whereas the state had contributed to the support of Dartmouth, its self-perpetuating board of trustees gave it an undemocratic organization and control, not in accord with the spirit of free government and free education. The Federalists argued, however, that Dartmouth College was a corporation whose charter from the king of England had the force of a contract which the state could not impair. The decision had far-reaching economic and political ramifications, but it meant specifically for colleges that the philanthropic endowments of private colleges would be safe from encroachment by the states. This encouraged private donors to give money to the private colleges and stimulated the states to establish their own universities under state control.

The state-university movement became accelerated to meet the new democratic demands for public higher education. Twenty state universities were founded before the Civil War, but they met vigorous opposition from the private and religious colleges in many ways. The religious groups often tried to prevent the passage of enabling laws in the legislatures or to transfer state moneys and land grants to religious institutions. Even after the establishment of many state universities, the religious groups often tried to establish religious interests in the new

universities or reduce their funds to insignificance. The score in the contest between state and church for control of higher education was more than even. For the few cases in which states tried to take over private institutions, there were many cases where the religious groups tried to control the state universities.

Up to the Civil War the state universities were far behind the private colleges in their influence upon American higher education. However, with the passage of the Morrill act by Congress in 1862, the great impetus to the state-university movement began. The Morrill act granted to each state 30,000 acres of public land for each of its members in Congress, the money to be used for the establishment of agricultural and mechanical colleges that would teach the liberal arts as well as the sciences appropriate to agriculture, engineering, mining, and forestry. Some of the states set up separate "A and M" colleges; others gave the money to their state universities. With this impulse the state universities became a great force in American higher education by the end of the century.

Higher education, in general, made huge strides as great private fortunes were poured into such established institutions as Harvard, Yale, Columbia, and Princeton and into the founding of such new institutions as Johns Hopkins, Chicago, Leland Stanford, and Cornell. Professional education in medicine, law, and theology was stimulated, and technical institutions like Rensselaer, Massachusetts Institute of Technology, Purdue, and others responded to the growing technological demands of American society. In the last quarter of the century the number of students in undergraduate colleges more than doubled, reaching more than 100,000 in 1900, while the enrollment in all kinds of postsecondary institutions reached nearly 250,000.

Beginnings of a Teaching Profession

Preservice training of teachers. With the tremendous expansion in publicly supported education that gained momentum throughout the nineteenth century, increased provisions for the preparation of teachers were clearly necessary. In the early years of the century most of the training of teachers was done at the liberal-arts colleges and the academies. There was little in the way of specific attention to the task of teaching; rather, it was felt that knowledge of the subject-matter field was enough. For elementary school teaching, the qualifications beyond religious orthodoxy and good moral character were vague and informal.

As early as the 1820's, however, a definite movement to provide specific preparation for teaching was evident when normal schools began to be established. Taking its characteristics somewhat from European examples, the normal school grew up in America to prepare teachers for

work in the elementary schools and became a generally accepted institution of teacher education in America by 1900. The word "normal" came from the French word meaning a model or a rule, connoting that the object of the institution was to give teachers rules for teaching.

The first normal schools in America were private schools such as those promoted by Samuel R. Hall at Concord, Vt., in 1823 and by James G. Carter at Lancaster, Mass., in 1827. The first state normal school was established in 1839 at Lexington, Mass., at the instigation of Horace Mann and Charles Brooks and with Cyrus Peirce as principal. By 1860 there were 11 state normal schools in eight states, and by 1898 there were 167 public normal schools in the United States, or slightly less than the number of private normal schools (including those conducted by religious denominations). In the latter nineteenth century, county normal schools and municipal normal schools, such as those in Boston, Philadelphia, Baltimore, Trenton, St. Louis, and San Francisco, made their appearance.

In the nineteenth century most normal schools admitted students directly from the elementary schools, and even as late as 1900 the most common requirement for admission was only 2 years of high school work. The courses of study varied in length, 2 years being the most common. In general, most of the curriculum was devoted to study and mastery of the elementary school subjects, with additional work in philosophy, psychology, history of education, and observation and practice teaching. Although there was great variety in the courses taught, nearly all normal schools eventually included some sort of observation and practice teaching in a "model" school conducted either by the normal school or in the public schools.

The influence of Prussian and French state systems of education and teacher training helped to spur the American states to develop their normal schools. The report of Victor Cousin on the Prussian system was given wide currency in America, along with the reports of such Americans as Horace Mann, Henry Barnard, Calvin Stowe, Charles Brooks, John Griscom, William C. Woodbridge, and Edward Sheldon. In Oswego, N. Y., Edward Sheldon became enthusiastic about the educational methods of Pestalozzi and brought some Pestalozzian-trained teachers to Oswego in the 1860's to help his staff improve their teaching. When Oswego became a state normal school, these ideas were taken up by other normal schools, and the influence began to spread rapidly in the United States. Other influential normal schools were the Illinois State Normal University at Normal, Ill., and the New York State Normal College at Albany.

Some liberal-arts colleges began to give lectures on the "art of teaching" and pedagogy, notably New York University in 1832, Brown in 1850, and Michigan in 1860. In the 1870's and 1880's regular professor-

ships and departments of education began to be established at such institutions as Iowa, Michigan, Wisconsin, North Carolina, and Johns Hopkins.

Toward the end of the century, education as a profession began to be recognized sufficiently to warrant the establishment of graduate instruction. New York University established graduate courses in 1888. Similarly, the New York College for the Training of Teachers was launched in 1888 under the presidency of Nicholas Murray Butler; its name was changed to Teachers College in 1892. When Teachers College first petitioned the Columbia University council to become affiliated with the university, it met with the reply ". . . there is no such subject as education and, moreover, it would bring into the university women who are not wanted." In 1898, however, Teachers College became affiliated with Columbia University and developed graduate work of a high level under the leadership of James E. Russell, dean from 1897 to 1927.

Despite the jaundiced eye with which "education" was viewed by the established academic institutions and subject-matter fields, graduate study in education made its way rapidly in colleges and universities and began making great contributions to the improvement of elementary and secondary school teaching.

Upgrading of experienced teachers. In addition to the notable extension of preservice training for teachers in educational institutions, many steps were taken to improve the quality of teaching through in-service training for experienced teachers. Teachers' institutes of a day or two to 5 or 6 weeks' duration were started by Henry Barnard in Connecticut in 1839, and the idea spread rapidly to most states. Study during the summer months was originated in 1873 under Louis Agassiz of Harvard in his summer courses at Nantucket for teachers of natural history. Eventually, summer schools became one of the most popular agencies for in-service education of teachers. The Chautauqua movement emanating from Chautauqua, N. Y., had much interest for many teachers, and several universities began to give extension courses on and off the campus, home-study courses, and library lectures. Much of the development of supervisory functions undertaken by state, city, and county superintendents, principals, and supervisors was designed to improve the quality of instruction among teachers already on the job.

Periodicals for teachers began to appear as far back as the *Academician* (1818). William Russell's *American Journal of Education* (1826 to 1831) and, above all, Henry Barnard's *American Journal of Education* (1855 to 1881) were of great interest. Textbooks for teachers began with Samuel R. Hall's *Lectures on Schoolkeeping* (1829), but their influence was rather slight until the professors of education at the end of the century began to publish books on a wide variety of topics.

Teachers' associations. Another important means of improving the status and quality of the teaching profession was the relatively large number of teachers' organizations that sprang up in the nineteenth century. Among the more important were the American Institute of Instruction (1830), consisting mostly of New England scholars and college educators, and the National Teachers Association (1857) which became the National Education Association in 1870. Despite the fact that the National Education Association had only 2,300 members by 1900, it was the most influential of the national organizations. Much wider in their contact with classroom teachers were the numerous city, county, and state teachers' associations that spread throughout the country. By publishing magazines, holding meetings and institutes, passing resolutions on all kinds of school policies, and petitioning legislatures and city councils, such teachers' organizations were able to improve the economic status of teachers by obtaining better salaries, better working conditions, and better schools. Although they were not socially radical in any sense, they soon came to realize the importance of group action for school reform if not for social reform.

Meanwhile, salaries began slowly to improve, so that by the end of the century schoolteachers ranked in income somewhat above the level of common laborers and somewhat below that of skilled laborers. A wide differential existed between salaries for men teachers and women teachers and between those for city teachers and rural teachers. Despite the improvement in teachers' salaries, they were still far below that of professional workers in other fields. The influx of women into the profession and the low estimation of the teacher's role held by the public in general helped to prevent further increase.

Qualifications for teachers continued to improve, as longer periods of college study were required and as states began to centralize the issuing of licenses and certificates for teaching, thus prompting local communities to raise their standards. Gradually, too, the voluntary and mutual societies for death benefits, illness, and old-age pensions began to give way to public and state retirement and pension systems. Teachers were drawn largely from the lower middle classes of American life, and their personal lives were subjected to the heavy social pressures of the community in which they worked. This fact, coupled with the low salaries and the use by women of teaching as an interim employment while waiting for marriage, meant that few teachers stayed very long in the profession. Great gains were made in the nineteenth century, but a long distance remained to be traveled before teaching could become a genuine profession worthy of its role in society.

Nonschool Agencies of Education

Organized efforts for the education of the youth and adult populations outside of the regularly constituted school and university systems took tremendous strides in the nineteenth-century United States. The impulse to spread knowledge to all kinds of people was promoted by all sorts of philanthropic and humanitarian agencies as well as by some commercial ventures. These organized movements spread through all social classes in the population, including the laboring classes of the cities as well as the white-collar and professional classes. Mechanics' institutes, workingmen's and merchants' libraries, and lectures for industrial and commercial workers became very popular as ordinary people became imbued with the idea that knowledge gave power.

The Boston Apprentices' Library was formed in 1820, and the idea soon spread to most cities in the country. By 1829 the New York Apprentices' Library had 10,000 volumes and by the middle of the century was serving three-quarters of a million people, principally working-class people. The Boston Mechanics' Institute was founded in 1826 and the Society for the Diffusion of Useful Knowledge in 1829. "Mercantile libraries" for young clerical and commercial workers also became very popular after the 1820's. Many of these organizations sponsored lectures, discussions, debates, and public events of various kinds. Employers and philanthropically minded members of the wealthier classes also promoted adult education in such forms as the Lowell Institute in Lowell, Mass. (1836), Cooper Union in New York City (1859), and Peabody Institute in Baltimore.

On a larger scale and serving the rural regions as well as the urban communities, the lyceum movement became an important agency for adult education in the first half of the nineteenth century. First organized by Josiah Holbrook in Millbury, Mass., in 1826, the lyceum sponsored lectures, forums, public discussion, and reading material on all kinds of scientific and social subjects, including support for the public school movement. Beginning as local discussion groups, the lyceums began to command the services of some of the best speakers and orators of the day, who often went about the circuit giving popular lectures. By 1834 some 3,000 communities boasted lyceums.

In the latter part of the century the religiously motivated Chautauqua movement served large adult audiences throughout the country. Originated by Lewis Miller and Bishop John H. Vincent of the Methodist Episcopal Church, the Chautauqua Assembly was organized in 1874 at Chautauqua Lake, N. Y., as a summer training course for religious workers. Local Chautauquas eventually appeared in hundreds of communities. In 1878 the Chautauqua Literary and Scientific Circle pro-

vided a 4-year reading course in literary, social, scientific, and religious studies. Stemming from the religious motivation for youth and adult education were the Young Men's Christian Association, the Young Men's Hebrew Association, and the Young Women's Christian Association. Reaching the younger age levels, the Boy Scouts of America soon became a nationally effective agency for out-of-school education.

The public thirst for knowledge also expressed itself in many other ways. Paralleling in many respects the public school movement was the growth of public libraries. Free public libraries soon began to appear in Boston and other New England towns, and New Hampshire passed the first state law allowing public funds to be used for the establishment of public libraries on a state-wide basis. With the stimulus given by Enoch Pratt and Andrew Carnegie later in the century and the founding of the American Library Association in 1876, the public-library movement gained great momentum.

The improvement in printing methods and the public demand for reading material made possible all kinds of easily available published materials. Early newspapers like the *New York Sun*, *New York Herald*, and *New York Tribune* and later the Hearst and Pulitzer press fed the popular demand for human interest and popular scientific stories. Cheaply priced books stressing useful knowledge, biography, history, science, and encyclopedic information were put out in increasingly large numbers. Magazines and periodicals of all kinds came into their own with the publication of such nationally known magazines as the *Ladies' Home Journal* (1883) and *McClure's* (1893), which catered to the interests of women. The urge for self-improvement among women was further revealed in the establishment of hundreds of women's clubs and literary circles, eventually resulting in the organization of the General Federation of Women's Clubs in 1889.

The eagerness for improvement thus reached all social levels of the population—the upper- and middle-class women's clubs as well as the settlement houses for the underprivileged classes in New York, Boston, Chicago, and elsewhere; the scholarly and professional societies as well as the mechanics' institutes; the lyceum and Chautauqua as well as the Metropolitan Museum of Art (1870) and the American Museum of Natural History (1869); the county fairs as well as the New York stage, the Metropolitan Opera Company, and the Philharmonic Society of New York. In these and many other ways the education of the American people, outside of regular educational institutions, gained momentum along with the education of their children and youth in schools and colleges.

CHAPTER XVIII

EDUCATION IN NINETEENTH-CENTURY AMERICA- Continued

EDUCATIONAL AIMS, CURRICULUM, AND METHODS

Most of the educational problems inherited from the nineteenth century can be traced in some measure to the vast expansion of the school system. The nineteenth-century United States was marked by an enormous expansion in population. There was a vast increase in building the things that were needed to exploit the resources of a new continent. The curriculum at all levels of education expanded rapidly, and scores of new subjects were added to meet all kinds of demands. As indicated in the preceding chapter, American culture revealed the interplay of several major factors, the religious tradition, Humanism, democracy, nationalism, capitalism, science, industrialism, and a new psychology. Out of this welter of forces appeared several distinctive and dominating aims for education.

Educational Aims

The principal aims of education in the nineteenth century can be identified and defined in many ways, but at least six outstanding conceptions were at work at the different levels of the educational system. Although they overlap to a considerable degree, they are given here to indicate some guidelines for the discussion that follows.

Character and moral development. Stemming from the great influence that organized religion played in the establishment and control of American education, the ideal of character development through religion was still a dominant aim in the nineteenth century. Bulwarked by the religious and humanistic traditions, "moral training" remained closely identified through much of the century with the ideals of Christian character and was often considered to be impossible apart from specific religious training. As the secular movement gained headway, character development continued to be emphasized as a function of the public schools despite the absence of sectarian religious instruction. This aim was influential at all levels from elementary school through the liberal arts college.

Mental discipline. Rooted in the European traditions of idealistic and rationalistic philosophy, the ideal of mental discipline was current in the early part of the nineteenth century and then gained great popularity in the middle and later decades. This aim put little stress upon the acquisition of knowledge and information but rather emphasized the importance of the training of the faculties of the mind and the cultivation of the intellectual powers apart from any specific application to practical affairs. The disciplinary theory was strongly supported by the religious and humanistic traditions and was most often used to justify the extensive teaching of the classics and mathematics. It was especially popular in the liberal arts colleges and was often used to support the college-preparatory functions of the academy and high schools.

Literacy and information. The ideal of universal literacy and of the acquisition of specific factual knowledge came to challenge the disciplinary ideal during the nineteenth century. At the elementary levels, literacy through the fundamental processes of the three R's had gained headway from the time of the Protestant Reformation and was thus supported by the religious tradition, while the democratic doctrines of universal suffrage gave added impetus to literacy as a prime function of the common school. The acquisition of information as such was stimulated by the popularity of scientific knowledge at all social levels of the population. Backed by the scientific tradition, the ideal of scholarly research, and the new stimulus-response psychology of Thorndike and others, the informational aim gained great headway over mental discipline and was used to justify the introduction of the sciences and specialized knowledge of all kinds into the high school and college. It therefore helped to fix upon the schools the idea that education was virtually equivalent to the mastery of systematic bodies of knowledge organized into subject-matter fields. It was used to justify lectures, memorizing, drill, recitation methods based upon learning of textbook materials, and the ability to pass examinations as a test of mastery.

Vocational and practical aims. With the great advances in science, technology, industrialism, capitalism, and democracy, it was only natural that the vocational and practical aim should gain an increasing place in American education in the nineteenth century. Joining with the informational aim, the ideal of practical usefulness challenged the hold of the idea of mental discipline and justified the introduction of specific courses to help prepare high school and college students for getting jobs in a wider and wider variety of occupations. The sciences and their applications to industry, business, and agriculture were strengthened by the capitalistic doctrine that everyone should be trained to make a living in order to get ahead in the world and by the democratic ideal that everyone should have the opportunity to fit himself for some lifework.

Great battles were fought between the proponents of disciplinary, or cultural, studies and the proponents of vocational, or practical, studies. New studies that had gained recognition through the argument of practicality were often justified as disciplinary in the face of demands that still newer subjects be recognized. Or an entrance into traditional institutions was sought for the newer subjects by claiming that they were just as strongly disciplinary as the older studies; once they were admitted, it was claimed that they possessed superiority over the older studies in that they were practical as well as disciplinary. The history of the various sciences and modern languages furnishes examples of both these tactics. The practical and vocational aim, of course, was especially strong among the non-college-preparatory studies of the high schools and the technical courses in the colleges.

Civic or social aim. Whereas the social aim in secondary and higher education had earlier been couched in aristocratic terms of training for leadership, the democratic and nationalistic forces of the nineteenth century began to stress the importance of citizenship education for all. With the growing complexities of social life, it became apparent to many that the schools and colleges needed to make more direct efforts to train the citizenry of the nation for their duties and responsibilities. This aim gave great support to the introduction of the social studies at all levels of education and helped to stimulate interest in history, government, economics, and other social studies. Although the extremes of patriotic fervor and nationalistic Americanization programs were often reached, nevertheless this aim was extremely important in helping the schools to play their part in welding a nation out of many divergent parts and to instill basic democratic attitudes among the people.

Individual development. The individualistic conception of man that was promoted jointly by capitalism, by a frontier democracy, and by the newer psychology of individual differences gained some headway in educational circles in the nineteenth century. The philosophy of naturalism that stemmed from Rousseau and Pestalozzi gave American educators an interest in developing the capacities of each individual to the full. This conception first entered the educational system most prominently at the lower levels and gradually worked its way upward. It was supported by a capitalistic individualism that looked upon the individual as of prime importance and upon society as simply an aggregate of well-developed individuals. When this ideal was further supported by a psychology of individual differences, it seemed clear to many more persons that the principal aim of education was to enable the child to develop according to his own needs, interests, and capacities. In general, this aim was not as influential in the nineteenth century as other aims, but it did gain currency in some quarters and helped to justify the elective

system as being a means by which students might freely choose the studies of most value to them. It therefore supported the practical and vocational aims and was most often found among non-college-preparatory subjects in opposition to the ideal of mental discipline. In the twentieth century it became one of the dominating conceptions in educational theory.

Elementary Education

The aims to develop good moral character and literacy outran all others in the elementary schools of the nineteenth century, although the practical, social, and individual aims were gathering momentum during the century. Of course, the ideal of physical discipline, as a means of keeping order in school and punishment for misconduct, also contributed its share and could be relied upon by teachers when all other aims seemed fruitless.

European influences. Throughout the century a series of specific influences from Europe were at work in American education. From England came the Sunday schools, the infant schools, and the monitorial schools (see pages 428 to 429). Not only did they help to provide a transition from private to public school systems, but the infant school spread the notion that schools had a responsibility to young children beginning with ages four, five, and six with respect to religious, moral, and literacy instruction. The monitorial schools helped to further the idea that class instruction might be better than individual instruction or at least could be effective for moral, literacy, and informational purposes. Likewise, they showed that discipline through rewards and social punishment was more effective than corporal punishment.

From Germany came the ideas of Pestalozzi, Froebel, and Herbart. Pestalozzian ideas (see pages 435 to 437) not only reinforced the moral and religious aims but also gave stimulus to the literacy, social, practical, and individual aims. As Pestalozzi's methods of teaching were adapted to American practices, newer methods of teaching the three R's appeared; more attention was given to the study of nature and concrete objects; the practical usefulness of geography, drawing, music, home economics, and industrial arts was recognized; and a psychological rather than a strictly logical organization of subject matter was designed to meet the learning needs of individuals. In the hands of enthusiastic and well-trained teachers these newer methods promoted better learning; but as the methods became formalized and systematized, the ideal of passing on information more efficiently became dominant.

Froebel's kindergarten (see pages 437 to 438) stressed the moral and religious, the social, and the individual aims. Under the influence of one of Froebel's students, Johannes Kraus, who was in America in the 1850's,

and of Mrs. Carl Schurz, who established the first kindergarten in America at Watertown, Wis., in 1856 (taught in German), the kindergarten idea spread rapidly. Elizabeth Peabody, Horace Mann's sister, established a kindergarten taught in English in Boston in the 1860's, and William T. Harris added kindergartens to the public school system of St. Louis. By 1880 they had appeared in some 30 states, and by 1900 there were some 4,500 kindergartens in the United States, more than two-thirds of which were privately sponsored. The kindergarten's emphasis upon development of the individual child's capacities through play activities, greater freedom of movement, and social attitudes of cooperation gradually helped to relieve the rigid discipline and formal atmosphere of the elementary schools. Francis W. Parker, as superintendent of schools in Quincy, Mass., and as principal of the Cook County Normal School in Chicago, is given the credit for much of the success of this movement during the 1880's and 1890's.

The ideas of Herbart (see pages 438 to 439) had great vogue in America in the last two decades of the century, much as Pestalozzian ideas were popular in earlier decades. The initial Herbartian stimulus tended to stress the social aim of education through the social studies and literature. When, however, his science of teaching through the five formal steps was formalized into systematic lesson plans, the informational aim came strongly to the fore, and Herbartian methods were used largely as a means of more effective mastery of subject matter. Herbartianism became prominent in normal schools and teachers colleges through the influence of such men as Charles De Garmo, Charles A. McMurray, and Frank McMurry and through the organization of the National Herbart Society in 1895, which later became the National Society for the Study of Education.

Although all the foreign influences upon American elementary education cannot be mentioned here, the increasing attention to education for handicapped children should be noted. The democratic ideal that all children should have an opportunity to develop themselves drew attention to the unfortunate deaf, blind, crippled, and feeble-minded as well as to the more fortunate children. In the first half of the century in France Edouard Séguin was making a study of the learning processes of subnormal and deaf children. His work was an influence on Thomas H. Gallaudet, who helped to establish a school for the deaf in Hartford, Conn., in 1817 and who advocated the use of lip language rather than finger or sign language. State schools for the deaf began to appear in Kentucky, Ohio, Massachusetts, and elsewhere as early as the 1820's and 1830's.

Also from France came the stimulus to education for the blind, through the efforts of Dr. S. G. Howe, who helped to establish the Perkins Insti-

tute for the Blind in Boston in 1832. As the idea spread to New York, Philadelphia, and elsewhere, state schools began to appear. Great impetus was given to the work by the adoption of the Braille method of reading and by the action of Congress in allowing the post-office department to send materials for the blind free through the mails. The study of feeble-minded children had been a part of Séguin's work in France and Gallaudet's work in the United States. The first state institution was the Massachusetts School for Idiotic and Feeble-Minded Youth in 1851. As interest in the work spread, classes for subnormal children appeared in the public schools in Providence in 1893 and rapidly thereafter in other school systems.

Private schools for crippled children were established in New York in the 1860's. Later in the century special attention to the crippled was given in public schools and in special state institutions in various parts of the country. The crowded and unhealthy character of city life also drew attention to the need for the rehabilitation of delinquent children. Although the early conceptions were largely disciplinary and emphasized punishment in "reform schools" or "industrial schools" run by the states, the public school systems gradually began to institute more appropriate reeducative processes.

Expansion of the elementary school curriculum. The many details of the expansion of the curriculum of the elementary school in the nineteenth century cannot be described here, but the fact of expansion is of the utmost importance. The differences to be found in the way the curriculum developed were enormous, for no one pattern was common in various schools, cities, or states. In the course of the century the rather narrow studies of the three R's in the dame schools, district schools, reading schools, and writing schools were expanded to include many of the studies that had been taught in the academies and early high schools.

First and foremost in the elementary curriculum was the study of the English language, in accordance with the aim to increase literacy among the general population. Whatever the names given in various schools to this study, it most commonly included reading, writing, spelling, and eventually the rules of grammar, rhetoric, and composition. Among the hundreds of authors who wrote books on these subjects the most influential were doubtless Noah Webster, Lindley Murray, and William Holmes McGuffey. Webster's "blue-backed speller," grammar, and reader were enormously popular; the speller was doubtless the most widely used schoolbook during most of the century; it expressed the ideals of patriotic nationalism and represented the new civic and social aim for education as well as the literacy aim. Murray's *English Grammar*, representing the disciplinary and literacy aims, was patterned on the long-recognized divisions of grammar as defined in Latin grammars, namely,

orthography, inflection, syntax, and prosody. McGuffey's graded series of readers reflected the dominant middle-class virtues of religious morality, patriotism, and prudent practical morality as a means of getting ahead in life. The religious and moral, literacy, social, and practical aims were paramount in McGuffey's six readers that appeared after the 1830's.

The next most influential subject in the elementary school was undoubtedly arithmetic, which received impetus principally from the disciplinary and practical aims. In the earliest decades the most common procedure in teaching arithmetic was for the teacher to write out or dictate the problems to the pupils, who then tried to solve them by applying the appropriate rules, the teacher then correcting the answers. An important advance in teaching methods was made when Warren Colburn published his mental arithmetic in 1821, which followed Pestalozzi's ideas of psychological and inductive organization of subject matter. In the early part of the century, arithmetic gained in popularity because of its practical usefulness, but in the latter part of the century it was further justified because of its disciplinary values. Nature study also appeared in various forms on a much smaller scale as a result of the "object methods" of Pestalozzi.

Next in importance were the various social studies, principally geography and American history. The Massachusetts school laws of 1824 and 1827 required geography in addition to the study of English and arithmetic. American history was required by state law as early as 1827 in Vermont and 1857 in Massachusetts. American history textbooks appeared in large numbers during the first half of the nineteenth century in response to the rise of nationalism and the civic and social aims for education. Texts by Charles A. Goodrich and Peter Parley (Samuel G. Goodrich) led the field. The social and civic interest also led to the study of government, civics, and political economy as early as the 1830's and 1840's. This interest expanded in the later nineteenth century.

One of the best examples of the influence of the dominant political and economic ideals of the early nineteenth century upon the school curriculum is furnished by an elementary textbook entitled *First Lessons in Political Economy* and written in 1835 by the Reverend John McVickar, professor at Columbia College. Here can be seen at work most clearly the religious-moral aims, the civic and social aims of patriotism and economic individualism, and the practical efforts to get ahead. McVickar's glorifying of the traditional laissez-faire economic system, his opposition to governmental interference in business, and his defense of natural laws in economics are seen throughout his book. In a last

chapter on How to Make Money, McVickar idealizes the individualistic conception of the American dream as follows:

If he has good health and is industrious, even the poorest boy in our country has something to trade upon; and if he be besides well-educated and have skill in any kind of work, and add to this, moral habits and religious principles, so that his employers may trust him and place confidence in him, he may then be said to set out in life with a handsome capital, and certainly has as good a chance of becoming independent and respectable, and perhaps *rich*, as any man in the country. "Every man is the maker of his own fortune." All depends upon setting out on the right principles, and they are these:

1. Be Industrious—time and skill are your capital.
2. Be Saving—whatever it be, live within your income.
3. Be Prudent—buy not what you can do without.
4. Be Resolute—let your economy be always of to-day, not tomorrow.
5. Be Contented and Thankful—a cheerful spirit makes labor light, and sleep sweet, and all around *happy*, all which is much better than being *only rich*¹

In addition to the various English studies, arithmetic, and the social studies, the elementary school curriculum gradually also came to give some attention to drawing, music, and physical education, although they always remained in a subordinate position in respect to time and emphasis. Drawing entered some monitorial schools early in the century, and by the 1860's the schools in Boston, New York, Philadelphia, and some cities of the West were beginning to include it. Generally, at first, drawing was a matter of copying such standardized objects as vases and pitchers by using geometric circles and ellipses, but gradually freehand drawing became more popular. The teaching of drawing was influenced in one direction by the practical interest in mechanical drawing for industrial purposes and in another direction by the psychological interest in the development of manual and physical skills along Pestalozzian lines as a means of developing individual capacities.

Music, primarily as expressed in singing and choral work, became popular in the early decades of the century. It was especially promoted by Lowell Mason in Boston; he wrote instruction manuals for music teachers and persuaded the Boston public schools to introduce the subject into the system in the 1830's and 1840's. The idea spread to other cities, and later in the century the teacher-training institutions began to give special attention to it. By the middle of the century the interest in health and physical education began to attract the attention of some educators, but acceptance of the idea was slow. The study of hygiene and physiology was promoted by the antialcohol and antitobacco inter-

¹ JOHN McVICKAR, *First Lessons in Political Economy; for the Use of Primary and Common Schools* (Boston, Hilliard, Gray, and Co., 1835), pp. 86-88.

ests; physical education in the form of calisthenics, exercises, and playground activities began to appear in the 1850's and 1860's, and in the last decade of the century medical examinations were instituted in the schools of Chicago, New York, and Philadelphia.

Secondary Education

The nineteenth century saw substantial shifts in the character and aims of secondary education that were reflected in the shift from the academy to the public high school. At the beginning of the century the academy was the dominating secondary institution, regularly offering classical departments for college preparation and "English departments" for non-college-preparatory purposes. As the century progressed, the academies began to stress the college-preparatory subjects of the classical departments, with a consequent emphasis upon religious-moral and disciplinary aims. Concurrently, the public high school appeared, with the original intention of providing non-college-preparatory studies, though in the latter decades of the century it began to expand its offerings to include the college-preparatory as well as the non-college-preparatory functions. The public high school therefore often developed classical courses, English and historical courses, scientific courses, commercial and business courses, technical and industrial-arts courses, and home-economics courses. By the end of the century the religious-moral aim had given way to secular aims; and although disciplinary and humanistic ideals died hard because of the needs of college preparation, they were being challenged and often overshadowed by the informational, social-civic, vocational and practical, and individual-development aims.

These changes reflected the cultural patterns of a society in which religious and humanistic traditions were being overshadowed by the secular traditions of democracy, nationalism, science and technology, industrialism, and capitalism. The inherited European conceptions of an aristocratic, religious, and humanistic secondary education were losing ground to the democratic and secular forces that looked toward a secondary education for all American youth. Not only were more boys going on to secondary school, but opportunities for girls expanded as a part of the new experiment in democratic secondary education. In the early nineteenth century this took the form of the "female academies" and "female seminaries" under the leadership of such reformers as Emma Willard, Catherine Beecher, and Mary Lyon. They had to fight the inherited social conceptions, which insisted that woman's place was in the home to rear children and care for a family, and the psychological conception that women were inherently inferior intellectually to men. Despite these obstacles, girls' schools were established by Emma Willard at Troy, N. Y., in 1821, by Catherine Beecher at Hart-

ford, Conn., in 1828, and by Mary Lyon at Mount Holyoke, Mass., in 1838.

With this much gained, the advancing political and social democracy and industrialism of the time began to make it possible for the sphere of women's activities to be expanded to include business, industry, and the professions, especially teaching. When this happened, and as a corollary to it, girls were admitted to high schools on a coeducational basis, and by the end of the century they showed their interest and abilities for all to see by going to high school in larger numbers than the boys did. With an enormously expanded clientele it is no wonder that the secondary schools had to expand their courses of study accordingly.

Expansion of the secondary school curriculum. Just as in the case of the elementary school, the basic fact in secondary education was the rapid increase in the number of studies and the length of time devoted to them in secondary schools. Although figures do not mean much because of the variation in the names of subjects, nevertheless it is probably true that at the beginning of the century ten or twelve titles would have covered most of the subjects taught in the academies, whereas by the end of the century a hundred titles would not have done the same for the high schools. Whatever the number, however, it is clear that by the end of the century no one student could expect to study even a small proportion of the subjects offered in a reasonably large high school.

The development of the elective system was therefore a physical necessity in order to give students a chance to select the subjects they wished to study. The closed and prescribed course of study that all students followed in common was no longer possible to maintain. The addition to the curriculum of the new subjects pressing for admission, however, was not gained without great opposition from those who favored the traditional college-preparatory subjects. If the century is taken as a whole, including academies as well as high schools, it is certainly true that the college-preparatory subjects dominated the scene, as against the non-college-preparatory subjects, and within the college-preparatory subjects the preferred positions were given for the longest period of time to the foreign languages, mathematics, English, science, and social studies.

Foreign languages long held their preferred status, bulwarked as they were by the religious and humanistic traditions which dominated the colleges and which insisted that language study provided the best preparation for college. For most of the century, foreign languages meant Latin, of course, and, to a much lesser degree, Greek, which never made as much headway in the public high schools as it did in the academies. Despite great variety the commonest Latin course included grammar in the first year and then Caesar's *Commentaries*, Cicero's *Orations*, and Vergil's *Aeneid* in the following years. From the 1880's onward, French

and German struggled to gain a place of equality alongside Latin. This place was never fully admitted by the confirmed classicists; nevertheless, the modern languages had gained a firm foothold by the end of the century.

Mathematics stood with the foreign languages in importance, for it had the sanction not only of the religious and disciplinary traditions but also of the practical aim. Arithmetic was popular in the academies and high schools; but as it received more attention in the elementary school, algebra and geometry became the most widely taught mathematical studies in the secondary schools. Both the college-preparatory emphasis and the non-college-preparatory emphasis laid claim to the importance of algebra and geometry. For disciplinary purposes, it was argued that the memorizing of definitions, axioms, rules, and equations was unparalleled in respect to logical organization and difficulty as a means of training the mental faculties; for practical purposes, it was easy to argue that the knowledge of algebra and geometry was essential for the study of navigation, surveying, and the whole range of technical and scientific studies that supported the developing industrial society of the later nineteenth century. Trigonometry, mensuration, and astronomy also were taught in some secondary schools.

The various scientific studies showed a steady gain throughout most of the century. "Natural philosophy" rode to popularity on the wave of enthusiasm for scientific and useful knowledge that arose in the early decades of the century, and it was supported by the informational and practical aims. In the latter part of the century the great advances in physical science gave further impetus to the teaching of physics, which was then made into a logically organized body of subject matter in order to prove that its disciplinary values were equal or even superior to those of the classics. Much the same story was true of chemistry as knowledge of inorganic and organic substances expanded in the later nineteenth century. Physical geography, geology, and mineralogy also received some attention in the same way.

What had been known simply as "natural history" in the academies and early high schools gradually became known as biology or was divided into botany, for the study and classification of plants, and zoology, for the study of the structure of animal life. Early teaching of natural history proclaimed that it revealed the divine plan on earth and was thus supported by the religious aim as well as the informational and practical; but as the implications of evolution produced the bitter conflicts between religion and science, the teaching of biology became more secular in emphasis. The attempt was made to organize it as logically as the other disciplinary subjects in order to claim for it disciplinary values, but it never could quite compete with physics in this respect. After the

middle of the century physiology gained some headway as a result of Darwinism and the reformers' attacks upon the use of alcohol and tobacco.

The increased study of the English language arts was also one of the most important developments in the secondary school curriculum. At the beginning of the century the study of English was definitely in an inferior position. The Latin grammar schools had not taught it at all; and although the academies had begun to give it much greater attention, the classical departments in many academies so dominated the scene that "English courses" were definitely considered to be inferior and principally designed for those unable to follow the classical course. However, the democratic and nationalistic trends in American life greatly helped to promote the study of English, of which the claims for larger attention rested upon its social and civic, practical, and individual (leisure) values. These were the common arguments for non-college-preparatory studies in the early part of the century, but the disciplinary argument was soon adopted in favor of English to justify its recognition as a college-preparatory subject.

Grammar was the commonest form of English to be taught, but soon more and more attention came to be given to English composition, rhetoric, declamation and forensics, logic, and English literature. Proponents of English literature tried to maintain that it was as valuable for discipline as classical literature, a point that the classicists would never admit. When American literature gained some standing, the argument between the values of English and American authors ensued. To the end of the century, English authors far outweighed American in the time and attention given to them in the high schools.

The social studies likewise started the century in an inferior position but improved in their status throughout the century. History was promoted at first by the religious-moral, informational, social-civic, and practical aims and was thus largely a non-college-preparatory subject. It was also justified in the latter part of the century on disciplinary grounds, but its claims could never be fully established. Ancient history received a high proportion of time in comparison with modern European history, a fact that reflected the classical and humanistic tradition. European history often outweighed American history, although the growing nationalism of the nineteenth century stimulated the study of American history for patriotic and Americanization purposes. As more texts on American history were written and as the states began to require its teaching, American history began to be accepted for college entrance in the last decades of the century. Most of the content of history textbooks was political and military in nature, relatively little attention being given to social or cultural history.

Geography was also popular, especially in the first year of high school, and was increasingly accepted for college entrance. It was largely informational and descriptive in content, stressing the location of rivers, mountains, cities, and states. Some attention, too, was given to "moral and political philosophy," governmental and constitutional forms, civics, and political economy. These studies were stimulated especially by the informational and social-civic aims, which received their impetus from the democratic and nationalistic elements in American society, which saw a need for citizenship training among the youth of the nation.

The other studies that entered the secondary school curriculum as non-college-preparatory subjects remained virtually in that inferior position throughout the century. Industrial arts, home economics, commercial studies, and agriculture received their prime impetus from the vocational and practical aims; others, such as the arts and physical education, were stimulated principally by the values of individual development. In general, the so-called "vocational studies" received earlier attention, in the middle of the century, in private institutions outside of the public high schools and then were gradually admitted to the expanded high schools or to special vocational high schools.

In the early part of the century the manual-labor movement, stemming from Pestalozzi and Fellenberg in Europe, gained wide popularity in the United States. The idea was sponsored by such men as William McClure and Joseph Neef, who organized the Manual Labor Society for Promoting Manual Labor in Literary Institutions in 1831. Many academies took up the idea and tried to combine farming or industrial work with regular study. The character-forming aim, as well as the social and practical aims, was set forth by the manual-labor enthusiasts, who saw in the idea a chance for students to engage in useful work that would help them to pay the cost of schooling while developing habits of democratic cooperation, independence, health, and industry. The strength of the academic tradition was too great, however, and the movement declined rapidly in the 1850's. It was important principally as indicating a temper among the people that was gradually to force secondary education to take account of it.

More influential in American secondary education was the manual-training movement, which became popular in the latter part of the century. It had two principal phases. It started out along Pestalozzian lines to give exercise to the motor skills, along with intellectual and moral training. It gave high place to the individual aims of self-development through sensory activities and was even justified because of its disciplinary values. In the last two decades of the century the motive changed, however, to absorb more fully the practical and vocational aim,

as businessmen and manufacturers saw the values in such work for training boys and girls to become better prepared for jobs in industry.

President John D. Runkle of the Massachusetts Institute of Technology was impressed by the manual-training exhibit of Finnish, Russian, and Swedish students that was on display at the Philadelphia Centennial Exposition and urged that similar work be done in the high schools of the United States. High schools for manual training were established at the Massachusetts Institute of Technology, Washington University in St. Louis, and elsewhere in connection with universities and public school systems. In 1895 Massachusetts required manual training to be taught in the high schools of all cities of 30,000 or more in population. Typical subjects in manual-training courses and manual-training high schools were woodworking, clay modeling, iron forging, foundry and sheet-metal work, machine-shop work, and mechanical drawing. Drawing was stimulated both by the individual-development ideal as a means of expression and also by the practical desires of industry and business to make it useful for occupational training.

Home economics, or domestic science, has had a longer history in the United States than manual training, tracing back to the time of Emma Willard, Catherine Beecher, Harriet Beecher Stowe, and Ellen H. Richards. It also was the victim of the desire of some of its proponents to make it scientific and disciplinary, accompanied by a thorough study of physics and chemistry and biology, and of others to make it a useful and practical training for the family duties of girls. Home economics was cited by some of the progressive educators of the day as a helpful and practical activity to supplement intellectual studies as, for example, in John Dewey's school at the University of Chicago and in the Horace Mann School at Teachers College in New York. It also was looked upon as a vocational course for girls somewhat parallel to manual training for boys and entered the manual-training high schools in the form of sewing, dressmaking, millinery, and home management.

Commercial studies became increasingly important from the vocational and practical standpoint as American business and industry expanded in the nineteenth century. Some academies and early high schools taught bookkeeping, penmanship, and commercial arithmetic, but shortly after the Civil War a great boom was given to commercial subjects by the private business colleges that sprang up in virtually all cities of any size by the end of the century. Commercial studies began to be offered on a large scale in the high schools during the last two decades of the century, and by the end of the century several commercial high schools had been established in New York, Philadelphia, Pittsburgh, Washington, D. C., and elsewhere. Interest finally turned to agriculture, which somehow seemed to many to be the farthest removed from the college-

preparatory ideal and therefore the lowest in the scale of intellectual pursuits. Through the efforts principally of the land-grant colleges, about a dozen agricultural high schools had been established by the end of the century.

Music, art, and physical education fared scarcely better than the most "practical" of the vocational studies, for they had only the aim of individual development to justify them. They were not even vocationally useful. Music and art could not qualify under the religious-moral, disciplinary, informational, or civic ideals. Indeed, many thought of them as dilettante studies perhaps suitable for girls but generally wasteful of the taxpayers' money. They remained on the fringe of an American culture that glorified success in the economic and business world. Physical education prospered somewhat more because it had the backing of interest in health and physical activity, which could more easily be understood and accepted. New ideas of physical training, exercise, and calisthenics came in from Germany, Sweden, and France to stimulate the interest in gymnastics. By the 1880's and 1890's many city school systems were developing programs in physical training along the rather formal lines of German and Swedish exercises. Although an increasing number of high schools offered music, arts, and physical training, the general estimate of their academic standing is shown by the fact that they seldom carried credit for high school graduation and therefore almost never carried credit for entrance to college.

Standardization of the high school curriculum. It soon became clear that the persons who were most concerned about the expansion of the high school curriculum were the college educators. They saw utter confusion developing in the high schools, which apparently were bound to teach anything to anyone. When these high school graduates began knocking at the doors of the colleges for admission, what were they to do? It was one thing when the colleges could count upon most secondary school graduates having studied the classics and mathematics; it was disturbing when they began to study science, English, and the social studies; but when they began to offer manual training or home economics, the colleges felt that the line had to be drawn.

The high schools became more interested in offering a wide and flexible course of study to their students, as they admitted an ever higher proportion of youth of high school age. The colleges, on the other hand, were interested in having students come to them with a more uniform background of subject matter. The best way to remedy the situation from the point of view of the colleges was to bring order into the high schools by standardizing the high school curriculum for those who wished to go to college. This they set out to do in the way they knew best, by working through college-entrance requirements.

Some steps were taken before the problem became too acute when separate colleges began the process of accrediting certain high schools. Under the leadership of President James Burrill Angell, the University of Michigan in 1871 established a commission to inspect the high schools of the state and evaluate the quality of teaching, character of the curriculum, and standards achieved by the students. If the high school met the approval of the commission, its graduates were to be admitted to the university without further examination. This idea spread, and by the end of the century some 200 colleges and universities were using some form of accrediting device.

It soon became apparent, however, that students were going to cross state lines to go to college; the accrediting system was therefore not broad enough. Consequently, the idea of regional standardizing agencies was developed in order to arrive at understandings among groups of colleges and secondary schools concerning the standards of achievement to be met by the secondary schools if they wanted their graduates to be admitted easily to college. By the end of the century most of the country was covered by the following agencies: the New England Association of Colleges and Preparatory Schools (1885), the Association of Colleges and Preparatory Schools of the Middle States and Maryland (1892), the North Central Association of Colleges and Preparatory Schools (1894), the Association of Colleges and Preparatory Schools of the Southern States (1895), and the College Entrance Examination Board (1899). These associations did much to improve the standards of secondary schools in the direction that the colleges wanted to see them go and served to bulwark the college-preparatory idea in high schools, but the standardizing process was still not on a national scale. To this problem the National Education Association turned its attention in the 1890's in two very influential reports.

The Committee of Ten on Secondary School Subjects was appointed under the chairmanship of President Charles William Eliot of Harvard in 1892, and its report was published in 1893. The Committee of Ten, of whom seven were college presidents or professors and three were from secondary schools, appointed nine subcommittees to consider the following subject-matter fields in detail: (1) Latin; (2) Greek; (3) English; (4) other modern languages (French and German); (5) mathematics; (6) physics, chemistry, and astronomy; (7) natural history (botany, zoology, and physiology); (8) history, civil government, and political economy; (9) geography (physical geography, geology, and meteorology). Most of the members of the subcommittees were likewise college presidents or professors, with a sprinkling of secondary school administrators and a very few teachers. The subjects to be treated by the subcom-

mittees revealed what the Committee of Ten believed were appropriate secondary school subjects, namely, college-preparatory studies.

The recommendations of the Committee of Ten are interesting as revealing principally a disciplinary, informational, and subject-matter outlook on education, with an occasional acknowledgment of the moral and social aims. It was recommended that all subjects should be started earlier and studied longer in the high school curriculum. Only the Latin and Greek committees were apparently satisfied with the amount of time given to their subjects. It was also recommended that all subjects should be considered as equivalent in value; no matter what subjects a student took he would have had 4 years of strong and effective mental training. Further, there should be no distinction made between those students intending to go to college and those not so intending. Despite these protestations concerning equivalence of studies, the committee showed its bias in favor of language study when it recommended four types of model courses, all of which required foreign languages. The classical course was to include three foreign languages (two ancient and one modern); the English-classical course, two foreign languages (one ancient and one modern); the modern language course, two modern languages; and the scientific course, one foreign language.

In a similar vein the Committee on College Entrance Requirements issued its report in 1899, giving its stamp of approval to the following college-preparatory subjects: Latin, Greek, French, German, English, history, civics and economics, geography, mathematics, biology, and chemistry. The length of time a subject was studied in high school became as important as what was studied. If a student went to class for 4 hours a week for a year, this work was to be counted as a unit, acceptable to the colleges for admission and equal to any other college-entrance subject. Although the committee approved the elective system, realizing that students could not take all the courses offered in high school, prejudice was shown again in favor of languages when it recommended that certain constants should be in every college entrant's program, namely, 4 years, or units, of foreign language, 2 years of mathematics, 2 years of English, 1 year of history, and 1 year of science.

Apparently, in the view of the colleges, foreign languages were twice as important as English and mathematics and four times as important as history and science. Likewise, English and mathematics were twice as important as history and science. Although the committee stated that it hoped that the secondary school curriculum would be flexible and practical as well as disciplinary, its real reliance upon the disciplinary and humanistic tradition was all too clear in its recommended units. It protested that all subjects were equal in value if studied an equal

amount of time, but it obviously believed that some studies were more valuable than others.

Despite the standardizing movement and the quantitative arrangements that had been devised for judging college entrance, the underlying problems of a common general education for all American youth had not genuinely been faced. The solution was perhaps not too deplorable when, in 1900, only about 10 per cent of youth aged fourteen to seventeen were actually in high school and when most high school graduates still expected to go to college.

Higher Education

Some of the cultural forces that helped to bring about fundamental changes in the character of American higher education were as follows: the gradual substitution of secular for religious authority in the political, social, and intellectual activities of life; the growth of commerce and industry and of a corresponding acquisitive spirit; the enormous expansion of systematized knowledge, particularly in the physical and social sciences; the advance of democracy and of the idea of individual freedom; and the growth of the concept of naturalism and of the innate worth of individuals. One of the most important changes wrought by these factors was the decline of the prescribed curriculum and the acceptance of the elective system of studies. In this process a new conception of a liberal education emerged. As a result, the religious-moral and disciplinary aims began to be challenged by the informational, social-civic, practical, and individual aims of education.

Reform in the early nineteenth century. Secular ideas were strongly injected into American higher education through the efforts of Thomas Jefferson, who was instrumental in the founding of the University of Virginia in 1825. In his plans for the University of Virginia, Jefferson desired that all subjects useful to modern times should be taught and that the sciences, history, politics, and the modern languages should be put on an equality with the classics, mathematics, and philosophy. He also wished the university to train for political leadership as well as for practical, scientific, and scholarly pursuits. Jefferson's plans for college reform were important for the development of the elective system, for he enunciated the doctrines that the university should be conceived on a large scale, should be supported by the state and free from sectarian control, and should allow the student freedom to prepare himself for whatever future position he desired.

Also influential in spreading the ideal of the elective system was the work of George Ticknor, who brought to Harvard in 1819 German ideals of advanced scholarship and of freedom for teacher and learner. Ticknor set out to break up the prescribed curriculum and substitute election of

studies and methods of thorough scholarship. His justification for these reforms was that Harvard must meet the demands of the community for a useful education in scientific, technical, and mechanical studies and must meet the competition of rising technical schools. He further supported his plans by showing that the prescribed studies had been so extended by the addition of new fields of knowledge that a student could not study all of them without sacrificing scholarship; for proper learning the studies should be more adapted to the capacities, interests, and future pursuits of the students.

The ideal of the elective system, however, did not by any means go unchallenged in the 1820's and 1830's. Perhaps the most influential and comprehensive statement of the opposing position was made by the faculty of Yale in its famous report of 1828, which defended the ideal of religious and mental discipline through a narrow prescribed curriculum of classical studies as the best means of liberal education. Yale became a sort of champion for the conservative ideal of college education as Harvard was for the progressive ideal.

The currents of unrest, however, were strong, and many colleges took steps toward various kinds of reform of their curriculum. Some of the plans for reform were abortive and, in the face of determined opposition, amounted to little more than a statement drawn up by a board of trustees or a report written by a few progressive faculty members. Other plans were tried halfheartedly for a few years and then given up. Still others that developed under favorable conditions served as springboards for further development when the time was ripe after the Civil War. Three kinds of change took place in the first half of the century.

1. Parallel courses. The most common kind of effort to reform the college curriculum was to set up entirely separate courses, parallel to the prescribed classical course. Thus, the integrity of the classical course could be retained, and the B.A. degree would remain unimpaired, but there would still be a chance for students to get an education in the "scientific" or "literary" course. In these new parallel courses, the classical studies were either diminished, or they entirely disappeared to make way for the physical and biological sciences, English and modern languages, social sciences, and trades and industry.

In this way, there were attempts in some colleges to make concessions to the "practical" needs of the times; but, in most educational and religious circles, the traditional classical course was still looked upon as the only true route to a genuine liberal education. The new courses did not usually set such high standards for admission as did the classical course; that is, they did not require as much Latin or Greek. They were allowed to grant, not the bachelor-of-arts degree, which was jealously reserved for the classical course, but only a diploma or, later, such new

degrees as the bachelor of science, bachelor of philosophy, and bachelor of letters. This multiplication of courses and degrees became one of the most characteristic features of American colleges.

2. Independent technical schools. One very compelling reason why the colleges became interested in scientific and practical courses was the beginning of technological education on a high level as represented in the founding of Rensselaer Polytechnic Institute, Worcester Polytechnic Institute, Massachusetts Institute of Technology, Stevens Institute, Case School, Rose Polytechnic Institute, Armour Institute, and Clarkson Institute. Stephen Van Rensselaer, for example, established his school in 1824 with the purpose of ". . . affording an opportunity to the farmer, the mechanic, the clergyman, the lawyer, the physician, the merchant, and in short, to the man of business or of leisure, of any calling whatever, to become practically scientific." It was emphasized that students would not only receive literary exercises but also would be given proper development of manual abilities by appropriate muscular exercises. In this way, the student was to become familiar with the most important scientific manipulations and "particularly with those which will be most useful in the common concerns of life." Here was a direct menace to and a source of keen competition for the literary colleges.

3. Affiliated scientific schools. A few of the older colleges attempted to meet the competition and silence the cries of the reformers by establishing "schools of science" separate from the regular college but administratively associated with it. In this way, the college could retain its classical emphasis and give the traditional training to those students who wished to become clergymen, teachers, scholars, or merely "cultured" persons, whereas the scientific school could give a training to those who were intended for leadership in business or industry. Such were Sheffield Scientific School at Yale, Lawrence Scientific School at Harvard, Chandler School of Science at Dartmouth, and others at Princeton, Pennsylvania, Columbia, and elsewhere.

The elective system in the later nineteenth century. The most effective theory and practice of the elective system in the middle of the nineteenth century were formulated at Brown University by President Francis Wayland. He advocated making Brown into a real university by offering courses in all the major branches of knowledge and by devising new courses to meet the mechanical, agricultural, and industrial needs of the people. He saw that the curriculum was too crowded to justify requiring students to cover the whole round of studies and that the college must adapt itself to meet the needs of all classes of society or lose essential patronage to the technical schools.

Another outstanding proponent of the idea of creating a genuine university and allowing election of studies was Henry Tappan at the

University of Michigan. Taking inspiration from the German universities, Tappan argued that a university must be secular and supported by the state in order to be able to offer courses in all the subjects of human knowledge, to ensure freedom of research and of study, and to adapt itself properly to the needs of the state. Furthermore, it should be the crown of a complete state system of schools.

Most of the essential arguments for the introduction of the elective system into the college curriculum had been made before the Civil War, but it was not until the last half of the nineteenth century that economic and intellectual forces had developed sufficiently to convince even the most conservative that some degree of election was necessary.

Above all, the most influential spokesman for adapting the American college to the modern forces of a scientific age was President Charles William Eliot at Harvard. By virtue of his public utterances, of actually changing Harvard's curriculum, and of his ability to secure funds to carry out his ideas, Eliot for forty years was preeminent in the leadership of higher education and the development of the elective system in the United States. He strove to make of Harvard a university in which all the branches of modern knowledge could be taught and investigated. He expanded the notion of a liberal education as represented by the B.A. degree to include, on a level with the older studies, the modern subjects of English, French, German, history, economics, politics, and the physical sciences. He advocated a greater freedom for students in all phases of university life—freedom through the elective system and freedom to govern themselves in order to develop a sense of responsibility and self-reliance. He urged a greater recognition of the individual nature of students in order that they might develop adequately according to their particular needs, interests, and abilities. The better students should be allowed to progress at their own rate and to finish the college course in 3 years, if they desired, by using the elective system. The idea of accelerated programs of study was born with the elective system. Eliot opened the doors of Harvard to the demand for greater specialized, technical, and professional training. In all these ways he vastly promoted the extension of the elective system.

Other prominent advocates of the elective system as an essential part of a genuine university were Andrew Dickson White at Cornell, Frederick Augustus Porter Barnard at Columbia, Daniel Coit Gilman at Johns Hopkins, David Starr Jordan at Leland Stanford, and William Rainey Harper at Chicago. Influenced by Prussian examples and by the University of Michigan, President White's theories for Cornell embodied the close union of liberal and practical studies in a nonsectarian institution in close relationship with the state school system. Consequently, a greater emphasis was put upon modern languages and historical and

scientific studies, with a corresponding freedom of election for the student. Combined with White's leadership was the desire of Ezra Cornell and the intention of the Morrill act to promote agricultural and mechanical subjects that would appeal particularly to the farming and industrial classes of society.

Impressed by the phenomenal success of Harvard, Michigan, and Cornell in attracting students, President Barnard at Columbia reversed his earlier opposition to the elective system and advocated it as the best means of placing Columbia alongside these more progressive higher institutions. He was frank to admit that popular judgment of college studies must be the criterion of their value, regardless of what educators thought of that judgment. Further, he argued that the entering age of students had so advanced that mental and moral discipline was no longer necessary in college.

At Johns Hopkins, President Gilman provided seven different undergraduate courses all leading to the B.A. degree and thus fully admitted the new subjects to a level of equality with classical studies in the achievement of a liberal education. At Leland Stanford, President Jordan set out to give students any specialized courses they desired, but he also required students to concentrate on a "major" subject in the last 2 years of college besides taking a number of electives. At Chicago, President Harper set up a junior college, for those who desired or could afford to study for only 2 years, and a senior college in which a large amount of election was allowed.

Opposed to the advocates of the elective system, of whom the above were representative, was a large group, perhaps the majority of college educators until the end of the nineteenth century, who believed that the undergraduate college should not adopt the elective system. Such educators, represented especially by Noah Porter of Yale and James McCosh and Andrew West of Princeton, defended the traditional college. They advocated retaining the prescribed curriculum with its limited number of studies, its mental discipline, its emphasis upon classical and mathematical studies, its opposition to specialized, technical, and professional subjects, its ideal of close supervision of student life and morals, and its dominating religious tone. They argued that a liberal education was best promoted by continuing these conditions of college life. As a result of the intermingling of these two opposing theories of the curriculum, most colleges reached a compromise by which prescription and election in varying proportions operated simultaneously.

General trends in higher education. In spite of the efforts of the conservative groups, the character of colleges and universities began to change during the nineteenth century in the following identifiable ways:

1. The narrowly prescribed curriculum of a few subjects gave way to a large elective curriculum of many subjects.

2. The conception of a liberal education (as represented by the B.A. degree) was widened to include on an equality with the traditional subjects such new studies as English, the modern languages, the physical sciences, and the social sciences.

3. The ideal of the small undergraduate college began to lose ground in favor of the German ideal of a large university where research as well as instruction in the major branches of knowledge could be carried on. The lecture and laboratory systems began to encroach upon classroom recitation as methods of instruction.

4. The so-called "cultural" studies (classics, mathematics, and philosophy), which had long monopolized the prescribed curriculum, now had to make way for scientific and technical subjects (the so-called "practical" studies), which were useful as a preparation for specialized careers in the professions or in business, industry, or the academic world. Specialization in the graduate courses required more and more specialization in undergraduate courses.

5. The notion of mental discipline, or development of "intellectual power," through the study of the ancient classics and mathematics gave way to the notion that knowledge of subjects especially appropriate to each individual was a proper aim of college education. The practice of treating all students alike in the learning process gave way to the increasing attempt to provide for differing interests, abilities, and future occupations of different individuals.

6. The religious tone of college education began to yield to an increasing secularism as a result of a curriculum in which the secular aim to prepare for citizenship and an occupation was paramount.

7. The close and strict supervision of all phases of student life by the college administration began to weaken in favor of a greater freedom for the student to develop his own sense of responsibility and self-reliance.

8. The aristocratic nature of higher education as represented in the scarcity value of a college degree began to give way to the democratic notion that college education should be open to all classes of society and should try to develop civic responsibility and social understanding as well as occupational efficiency among the majority of young men and women.

The democratic movement in higher education included increased educational opportunities for women at the college level. In the East this took the form principally of separate colleges for women. Before the Civil War the Georgia Female College, Mary Sharp College in Tennessee, and Elmira Female College in New York began the process

which resulted in the establishment of such well-known women's colleges as Vassar, Wellesley, Smith, Mount Holyoke, and Bryn Mawr. Other women's colleges were established as semiindependent institutions affiliated with large universities, notably Barnard at Columbia, Radcliffe at Harvard, and Sophie Newcomb at Tulane. In the West the more common provision for women was in the form of coeducation. Oberlin was established in the 1830's on the basis of sex equality for women and race equality for Negroes. In the 1850's and later, coeducation appeared at Antioch and at other private colleges, but principally at such state universities as Utah, Iowa, Michigan, Ohio, and Wisconsin.

Technical and professional education in the universities also expanded to include greater attention to the long-established professions of law, medicine, and theology. Beginnings were also made in the development of graduate study and research in the academic sciences, as well as in the improvement of the newer occupational fields that were struggling to gain recognition as full-fledged professions, such as agriculture, business, journalism, architecture, library science, and the various professional aspects of teaching and education.

Development of American Educational Theory

At the close of the century two voices were being heard that eventually were to help modify American education in important ways. During his teaching at Johns Hopkins and his presidency of Clark University, G. Stanley Hall carried on many investigations and produced dozens of writings dealing with the psychological development of children and adolescents. His great contribution was to turn the attention of educators to the need for the careful study of child development. In his application of evolutionary conceptions to child study he often offered fanciful analogies that later brought him much criticism. His recapitulation theories, for example, that the child in his growth processes follows the evolutionary development of the race gained him not only great popularity but also much opposition. He found certain distinct stages in the development of the individual that parallel the changes in human society from the primitive stage to hunting, to cave dwelling, to early civilization, and to later civilization. His extensive writings on almost all phases of education, and particularly on the psychology of adolescence, made his name widely known until well into the twentieth century.

Much more influential in the long run was the work of John Dewey, who began to write on educational topics in the last decade of the century. His best-known educational works before 1900 were *Interest as Related to Will* (1896), *My Pedagogic Creed* (1897), and *The School and Society* (1899). These works, which stated the general theory un-

derlying Dewey's interest in the experimental elementary school at the University of Chicago (1896), heralded the revolt against the dominance of the religiously motivated moral aim, the disciplinary aim, and the informational aim, which had ruled elementary education throughout most of the nineteenth century. He argued that schools should strive to elevate the aims of civic and social experience, vocational and practical usefulness, and individual development. The outline of thought contained in these works formed the groundwork of Dewey's philosophy of education, which was elaborated in form and extended in practice throughout the first half of the twentieth century.

Dewey's philosophy of education took the form of a restatement of the aims of education in the light of the rapid social changes that had taken place in American society in the nineteenth century. According to Dewey, education has two sides, the psychological and the social, neither of which may be subordinated or neglected. On the one hand, education must start with the psychological nature of the individual child as the basis for education. The teacher must utilize the activity springing from the nature of the child and make it coincide with his efforts. On the other hand, teachers must be familiar with the social situation in order to interpret properly the child's activities and transfer them into social channels. Education proceeds by the participation of the individual in social relationships with his fellow human beings.

When the psychological approach is isolated from the social, education produces either a barren and formal development of the mental powers, with no idea of the use to which they are to be put, or a forced and external education, resulting in subordinating the freedom of the individual to a preconceived notion of society. Dewey attacked both the older attitude of formal indoctrination and the newer type of education, which attempted to train the individual for a specific adult life. He proposed instead that the child be put in complete possession of all his powers, capacities, skills, and judgment. This adjustment can be made only if teachers begin with an insight into the psychological interests and habits of the child, interpreting them in their usefulness as social instruments of action. Education is thus an active process of experiencing or, rather, a process of continuous re-formation of experience toward a more significant social meaning.

Schools must be set up to include both the social and the individual goal. Dewey considered the school as primarily a social institution; the processes in the school are social and not basically different from the social processes outside of the school. The school is simply that form of social life in which all the factors are concentrated that will most effectively and rapidly bring the child to share in the accumulated knowledge and skills of the race. The school must grow out of the home and

play life, which are the sources of the child's principal experiences. The best moral training is received, not in the form of dictates or discipline from the teacher, but as the child is obliged to meet the exigencies attendant on entering into proper social relationships with others in the school. Hence, the teacher should not impose flats or try to form rigid habits in the child but should select the proper influences to affect the child and assist him in responding to them.

The mere linking of the words "school" and "society" in the title of Dewey's book had a great effect on the minds of laymen and teachers—that of emphasizing the close relationships existing between the two. Dewey pointed out that modifications of method and curriculum should consist in efforts to meet the needs of a new society. This changed social situation was marked by the application of science to the means of production and distribution, by great manufacturing centers, and by rapid means of communication. Habits of discipline and responsibility that were earlier formed in the family system of economy can no longer be so given, and it is the duty of the school to enlarge this function of education.

Dewey believed the school to be a fundamental method of social progress and reform. Through education, society can formulate its own purposes, organize its means of attainment, and shape itself with definiteness in the direction it wishes to move. This is the essence of a democratic social order. The handing down of ready-made concepts is the mark of an autocratic social order; but with the advance of social as well as political democracy, which requires change and progress to prevent itself from reverting to autocracy, a new "social education" is needed. This social education, in Dewey's sense, should endeavor to make vocational interests or special interests of any kind a means for promoting the common life.

Dewey was also insistent that constant experimentation be conducted, to learn more about child nature in order to adapt school practices to its effective development. Inasmuch as child nature is inherently active and bubbling over with the impulse to do, it is the function of education to direct the impulses evident in the school. According to Dewey, these impulses are of four kinds: the social impulse of communication or conversation; the constructive impulse to make things; the impulse to investigate things; and the impulse of artistic or creative expression. Thus the school must be changed from a listening basis to a doing or working one and must be arranged so that the child can learn by experience and learn to think by managing experience. Since the proper solution of a problem demands intelligent thinking, thinking becomes the main factor in the ability to cope with new situations. Dewey defined thinking as

bringing the meanings of past experience to bear on the interpretation of new situations.

Accordingly, the subject matter and method of the school should be adapted to child needs. Dewey found that the general mistake was made of introducing the child too abruptly to special studies that have little relation to his own social life, whereas the social life of the child should be the basis of correlation or concentration in all his growth and training. Thus, the so-called "expressive," or "constructive," activities, such as manual arts, household arts, drawing, music, and nature study, should be used as means of introducing the child to more formal subjects. For example, language is primarily a means of social communication; yet much of its value is lost because it is taught as a separate study with the social element lacking.

In emphasizing the importance of the interests of the child, Dewey made another contribution to the enrichment of education. Interests, said Dewey, are signs of growing powers and as such require careful and constant observation. They should be neither excessively humored nor excessively repressed. Repression results in weak intellectual curiosity and lack of initiative, whereas unguided humoring results in transiency, caprice, and whim. Misconceptions of interest come from ignoring its moving, developmental nature. To protect pedagogical theory from a merely internal conception of mind and from a strictly external conception of subject matter, Dewey believed that interest should be viewed as a unified activity.

The genuine principle of interest is involved when the individual identifies himself with the fact to be learned or the action proposed. Interest provides the moving, or driving, force, whereas effort comes into play in the degree to which the achievement of the activity is postponed or made remote by obstacles. The effort to overcome obstacles or perform tasks stimulates thinking and reflection, which are the only really educative activities. Interest cannot be genuinely added or attached to a formal subject; it must be inherently contained in the activity in which the child engages. These activities are physical, constructive, intellectual, and social activities.

Such, then, were some of Dewey's conceptions of education in the late nineteenth century. In his theory of the desirable interaction of the individual and the social, Dewey stressed the fact that the psychological nature of the child must not be divorced from the social situation but must be used as the basis for directing his energies into socially useful channels. Rousseau's naturalism had emphasized the importance of child nature and minimized environment. The child's nature was conceived as inherently good and if freed from all constraint of environment naturally tending to unfold into the right kind of adulthood. On the

other hand, the religious tradition had emphasized the importance of the discipline of environment in curbing the individual's nature, which was supposed to be inherently bad. While paying his respects to Pestalozzi, Froebel, and Herbart, Dewey drew principally upon the growing forces of democracy, science, industrialism, evolution, and pragmatism for support. He thus believed that neither the psychological nature of the individual nor the social environment of the culture could be slighted but that a democratic society could be attained only by the proper interaction of the two.

CHAPTER XIX

EUROPE IN THE TWENTIETH CENTURY

THE INSTITUTIONS MEN LIVED BY

During the first half of the twentieth century the tempo of life—and of death—speeded up enormously. Prior to the First World War a rampant nationalism and imperialism characterized the foreign relations of the European countries though considerable progress toward social reform was taking place in domestic affairs. After the war, hope for peace and international cooperation through the League of Nations and for an extended liberalism and democracy in domestic affairs spread through several countries, only to be shattered by the world-wide depression of the 1920's and 1930's, accompanied by the rise of a militant fascism in Italy and Germany and communism in Russia. Virtually all European nations except England adopted compulsory military training, and all entered into the armament race, despite the opposition of socialist movements.

As democracy, fascism, and communism came into rivalry in the 1930's, the world was once again plunged into an even greater and more destructive world war. Once again the nations of the world hoped for peace and international cooperation by laying plans for the United Nations Organization even before the end of the Second World War. The vast increase in industrial and technological development made it plain that the world was indeed one world in which the welfare of each nation was closely related with the welfare of all other nations.

The almost unbelievable advances of industrialism and science that produced the atomic bomb finally made it clear that the choice now was between one world and—no world. It was as simple as that, and yet the choice was hampered by the most complicated political, economic, and social conditions the world had ever seen. Could nationalism be so checked that genuine international cooperation could be achieved? Could the capitalistic countries work successfully with the communist countries? Could the democratic and communist countries continue the cooperation that won the war against fascism in order to safeguard an enduring peace? These were some of the underlying questions that faced the victorious nations as they began to survey the problems of the

postwar world. Fundamental, too, was the question whether education, which had been so powerful in building nationalistic jealousies and hatreds in fascist countries, could become as powerful in building attitudes and loyalties favorable to international and world cooperation.

International Political Relations

The First World War. The first decade of the twentieth century was marked by a heightening of the imperialistic rivalries that had begun late in the nineteenth century. Industrialism now made the race for raw materials more hotly contested than ever. Outside of Europe several colonial wars were fought: the Spanish-American War (1898), the Fashoda affair in Egypt between France and England (1898), the war in Africa between England and the Boer republics (1899 to 1902), the Boxer Rebellion in China (1900), and the Russo-Japanese War (1904 to 1905). Nearer to Europe the rivalry between the Triple Alliance (Germany, Austria-Hungary, and Italy) on one side and the Triple Entente (England, France, and Russia) on the other side became more acute, resulting in the Morocco crises of 1905 and 1911, the Balkan crisis of 1908, and the Balkan wars of 1912 and 1913. Finally, when the Archduke Ferdinand of Austria was murdered at Sarajevo, in Bosnia, in 1914, the spark was struck that set off the First World War between the Central Powers and the Triple Entente. In 1915 Italy openly abandoned her pact with the Triple Alliance and joined the Allies; in 1917 Russia left the Allies and made a separate peace with Germany; the United States joined the Allies in April, 1917; and active hostilities ceased with the signing of the Armistice on Nov. 11, 1918.

President Wilson's 14 points were accepted as a tentative basis for the peace and represented the hopes of men of good will everywhere. They included the principle of open diplomacy, freedom of the seas, no annexations of territory, national self-determination of peoples, and a league of nations. At the Paris Peace Conference, which drew up the Treaty of Versailles, the "Big Four" were Wilson, Lloyd George of England, Orlando of Italy, and Clemenceau of France. In order to achieve the establishment of the League of Nations, Wilson had to compromise on his 14 points: open diplomacy was often wrecked by secret treaties; disarmament was applied only to the defeated nations; the colonies and territories of the Central Powers were divided up among the victors; and heavy reparations were levied upon the defeated. However, a larger measure of national self-determination was achieved for some peoples, notably the Poles, Czechs, Rumanians, South Slavs, Finns, Lithuanians, Latvians, and Estonians. Many dissatisfactions remained, but more political autonomy was achieved for more peoples than had been the case before the war.

The League of Nations. Largely through the insistence of President Wilson the Covenant, or charter, of the League of Nations was made an integral part of the Treaty of Versailles; Wilson feared the League would be lost if it were not agreed upon at the Peace Conference. The Covenant of the League was drafted in some 6 weeks by a special commission of the Peace Conference headed by Wilson, with little or no advance discussion by the nations involved. The League accepted the principle of national sovereignty and thus was not intended to be a genuine world organization but relied primarily upon public opinion and moral persuasion. Its aims were to induce the nations to reduce armaments, to respect and preserve the territorial integrity and existing political independence of the member nations, to submit to arbitration or judicial settlement any dispute likely to lead to war, to carry out economic sanctions against any aggressor nation, and to contribute military forces upon recommendation of the League Council to protect the Covenant of the League.

The organization of the League with its headquarters at Geneva was assigned to three principal agencies; the Assembly, the Council, and the Secretariat. The Assembly was made up of the representatives of all member nations; each state had one vote, and any decision had to be passed by a unanimous vote. The Assembly was given the right to discuss at its annual meetings any matter that was within the sphere of action of the League or that affected the peace of the world. It admitted new members, controlled the budget, made recommendations to the Council, and elected the nonpermanent members of the Council.

The Council was in effect the executive branch of the League, consisting originally of five permanent members and four nonpermanent members. England, France, Italy, Japan, and the United States were expected to be the five permanent members, but the United States did not join the League. Germany became the fifth permanent member in 1926; Germany and Japan withdrew in 1933; Russia was admitted in 1934; sanctions were levied against Italy in 1935; and Russia was ousted for invading Finland in 1939. The nonpermanent members ranged up to 10 in number at different times. Decisions of the Council had to be by unanimous vote of all members.

The Secretariat was the permanent administrative agency, headed by a secretary-general with a staff of officials to deal with the details of a wide range of problems including arrangements for mandated territories, disarmament, health, law, information, and intellectual cooperation. The various sections, advisory committees, and technical organizations of the Secretariat had no power but principally prepared materials to be submitted to the Council and the Assembly.

Two autonomous agencies operated in connection with the League. One was the Permanent Court of International Justice (World Court) at The Hague, designed to give legal and judicial decisions to those nations which were members of the League and others which agreed to accept its decisions. It was a court of law basing its decisions on international conventions, customs, and treaties and is not to be confused with the Permanent Court of Arbitration (Hague Tribunal), which was originally set up by the Hague Conference in 1899 and again in 1907 to render awards in disputes. The other autonomous agency was the International Labor Organization, which was designed to aid in improving the conditions of labor throughout the world. It consisted of (1) an International Labor Conference (on the model of the League Assembly), which made recommendations for the nations to follow in drafting their legislation on working conditions, woman and child labor, unemployment, labor unions, and the like; and (2) the International Labor Office (on the model of the League Secretariat), which was the permanent administrative agency at Geneva to draw up agreements and conduct research. The International Labor Office continued to exist and to function throughout the Second World War even when the League was virtually defunct.

Rise of fascism. Before 1914 and immediately after the First World War, most people in western Europe felt that ultimately reason, liberalism, and democracy would prevail. Democratic gains were made in England and France, and in Germany under the Weimar Republic. Democratic governments were established or maintained in Switzerland, the Netherlands, Denmark, Norway, Sweden, Finland, and Czechoslovakia. Most of the central European nations established the republican forms of government, although they were more nearly dictatorial in practice. Increasingly in the 1920's, however, the cause of reason and democracy began to suffer serious setbacks in many countries. Territorial disputes grew more heated; plans for reparations and war-debt payments met increasing resistance; disarmament conferences failed; world-wide depression grew more acute; demands for the return of lost colonies became more insistent from Germany and Italy; economic conferences failed; jockeying for power in Europe became incessant; and most nations were not willing to give up enough sovereignty to the League to make it a genuine force for peace and international cooperation. In a deteriorating situation, new voices began to attack democracy and praise the social values of fascism as a release from the ills of war and depression that beset the peoples of the world.

Although fascism took many different forms, in all countries it had certain elements in common. First, it was opportunistic in character and tried to gain power by attacking anything that people disliked and

by claiming to do everything that anybody wanted. It attacked in the same breath communism, socialism, capitalism, democracy, and liberalism. It professed to retain the ideal of private property but urged greatly centralized state control of the means of production and ownership. It appealed for the support of the working classes but destroyed free labor unions; and it appealed for the support of the depressed lower middle classes and white-collar workers. It played upon fears and loyalties by preaching an extremely nationalistic patriotism. It exalted the ideas of war, expansion, and aggression as normal and natural for young vigorous nations in their attacks upon the decadent and weak democracies.

Fascism magnified the exclusive symbols of race as a means of fomenting and utilizing prejudices in order to unite a people against a real or fancied scapegoat, such as the Jews or the Poles, the communists or the capitalists. It proclaimed the essential inequality of peoples and rejected the liberal doctrines of freedom, equality, and democracy. It rejected as inefficient the ideal of political democracy and consent of the governed in the formulation of political decisions; and it glorified the efficiency of a one-party system of the elite that by right could seize power and direct the destinies of the totalitarian state. All power resided in the leader, who somehow knew what was best for the rest of the people. Fascism, finally, relied upon terror, brute force, conspiratorial secrecy, ruthless suppression of all opposition, espionage, and propaganda to gain power and maintain the stability of the party. Once fascism was in power, all these methods plus complete control of all agencies of communication were used to justify, to spread, and to enforce acceptance of the party's policies.

The Second World War. Appearing first under Mussolini in Italy and with even greater effectiveness under Hitler in Germany, fascism went from victory to victory in the 1920's and 1930's in Europe, not to mention Japan's invasions of China in 1931 and 1937. The Second World War was taking shape as Japan violated China's territory; the League did nothing but express sympathy for China. When Italy invaded Ethiopia in 1935, the League levied economic sanctions but was not willing to go to war against Italy to prevent aggression. When Hitler marched into the Rhineland in 1936 in violation of the peace treaties, the League again was unready to act with force. Germany and Italy joined together in 1936 to form the Rome-Berlin Axis, which Japan later joined.

The lines of conflict then grew clearer in the Spanish Civil War of 1936 to 1939, when Germany and Italy openly gave help to Francisco Franco and his fascist revolt against the Spanish Republic, while France and Russia gave help to the Loyalists. Finally, as Hitler gained control

over Austria and then over Czechoslovakia at Munich in 1938, France and England began to see the handwriting on the wall. Hitler made a nonaggression pact with Russia in 1939; Mussolini invaded Albania, and when Hitler invaded Poland on Sept. 1, 1939, the Second World War was officially opened as England and France declared war. Flushed with early successes, Hitler invaded Russia in June, 1941, and the United States entered the war in December, 1941, when Japan attacked Pearl Harbor.

For 3 years the Axis in Europe suffered few setbacks; by November, 1942, they were in actual occupation of or dominated the whole of Europe from Moscow and Stalingrad to the English Channel and from Norway to North Africa. The tide began to turn late in 1942, when the British defeated Rommel at El Alamein in Egypt; then United Nations forces landed in North Africa, and the Russians lifted the siege of Stalingrad in February, 1943. From then on for the next 2 years the tempo of success for the United Nations began to accelerate. Italy surrendered unconditionally on Sept. 3, 1943, and became a cobelligerent with the United Nations; on June 6, 1944, United Nations forces invaded France; and then Great Britain and the United States from the west and the Russians from the east began the final squeeze that resulted in the unconditional surrender of Germany as announced on May 8, 1945. Meanwhile, the war against Japan in the Pacific area had been accelerated from the end of 1942, until the use by the United States of the atomic bomb and the declaration of war by Russia caused Japan to surrender in August, 1945. The fascist nations had been decisively defeated, and the United Nations turned once again within a generation to the difficult problems of peace, reconstruction, and international cooperation after the most destructive war known to man.

After a long series of meetings, the Council of Foreign Ministers of England, France, Russia, and the United States drew up tentative peace treaties for the defeated nations of Italy, Hungary, Bulgaria, Rumania, and Finland. Thereupon, a full-dress peace conference was called at Paris in the summer of 1946 to approve and make suggestions for changes in the various treaties. The final determination, however, rested with the Big Four. In the course of the conference the lines between a Russian bloc and a Western bloc seemed to be sharpening and tightening, much to the distress of those who were seeking desperately to enlarge the basis of common agreements.

United Nations. One great hope of the world for greater success in international cooperation than was achieved after the First World War was the fact that cooperation in winning the war had been so effective and that plans for continued cooperation in the peace were laid long before the war ended. Several important steps were taken, many of

them by means of personal consultation among the heads of government, by the United States, Great Britain, and Russia. In August, 1941, even before the United States was in the war, President Roosevelt and Prime Minister Churchill announced the principles of the Atlantic Charter, to which 31 nations eventually subscribed. The Atlantic Charter proclaimed the following peace aims: no territorial aggrandizement; self-determination of nations; access for all nations on equal terms to the trade and raw materials of the world; collaboration of nations to improve labor standards and economic security; all nations to have the means of dwelling in safety within their own boundaries; freedom of the seas; ultimate abandonment of force by all nations and disarmament of aggressor nations pending the establishment of a permanent system of general security.

In January, 1942, the United Nations Declaration was signed, pledging 26 nations to fight the Axis until victory. In October, 1943, at the Moscow Conference, Great Britain, Russia, and the United States subscribed to the principles of the Atlantic Charter and agreed to maintain peace after the war and to set up an international security organization. At Teheran in December, 1943, and at Yalta in February, 1945, Roosevelt, Churchill, and Stalin met to lay further plans for the defeat of Germany and to work out the details of their pledge to work together in peace as well as in war.

In October, 1944, representatives of Great Britain, Russia, the United States, and China met at Dumbarton Oaks in Washington, D. C., to draw up proposals for a general security organization; these were presented to the governments and peoples of the United Nations for discussion prior to the calling of the San Francisco United Nations Security Conference in April, 1945. At San Francisco, 50 of the United Nations discussed and agreed upon a charter for the United Nations. The United States was the first to ratify the charter when it was approved by the United States Senate on July 28, 1945. The organization officially came into existence when Russia, as the twenty-ninth nation to do so, ratified the Charter on Oct. 24, 1945. After a series of preparatory commissions, the United Nations Organization held its first meeting in London in January, 1946. Plans were made at that time for a permanent headquarters somewhere in Westchester County, N. Y., or Fairfield County, Conn., and the next meetings were scheduled for New York City, which was selected as permanent headquarters in December, 1946.

The United Nations Organization follows in many respects the administrative pattern of the League of Nations but appears to have many advantages. First, the two most powerful nations in the world, the United States and Russia, were members from the beginning; neither was a member of the League of Nations at its beginning. Second, it

was formed before and independently of the peace conferences; all nations had ample time to discuss the Dumbarton Oaks proposals and to voice their objections and suggestions at the San Francisco Conference. Finally, the powers of the Security Council are greater than those of the old League Council; the general purposes of the organization include the aim to promote social, economic, educational, and cultural cooperation as well as to take collective action to maintain international peace and security. The United Nations has established five integral agencies, rather than the three of the old League, namely, the General Assembly, the Security Council, the Secretariat, the Economic and Social Council, and the International Court of Justice.

The General Assembly includes representatives of all the member nations, each country having one vote; important decisions are to be made by a two-thirds majority and all other decisions by a simple majority.¹ The Assembly has the right to discuss any matter within the sphere of international relations and to make recommendations to the members and/or to the Security Council for the peaceful adjustment of any situation that seemed likely to impair the general welfare. The Assembly also may admit new members; suspend members; elect the members of the Economic and Social Council and the nonpermanent members of the Security Council; and initiate studies and make recommendations to promote international cooperation in political, economic, social, cultural, educational, and health problems that will assist in realizing basic human rights or freedoms for all peoples without distinction as to race, language, religion, or sex.

The Security Council consists of five permanent members (the United States, Russia, Great Britain, France, and China) and six nonpermanent members, each to be elected for 2 years by the General Assembly.² Decision on procedural matters is to be reached by a vote of any seven members, and decisions on substantive measures are to be reached by a vote of seven members, including all five permanent members. This was the voting procedure agreed upon at Yalta.

The Security Council has the primary responsibility for maintaining international peace and security, including the prevention and suppression of aggression. It may make recommendations for the peaceful solution of disputes, and it may determine what constitutes a threat to peace or an act of aggression and may take steps to maintain or restore peace by the use of air, naval, and land forces. Member states are to make available on call such armed forces and to give all assistance to

¹ Paul-Henri Spaak of Belgium was elected the first president of the General Assembly.

² The first nonpermanent members were Australia, Brazil, Egypt, Mexico, the Netherlands, and Poland.

their use. In order to make immediate military action possible, member states are to make available national air-force contingents, the strength, availability, and plans for use to be determined by the Security Council with the help of a Military Staff Committee composed of the chiefs of staff of the permanent members. To overcome the weaknesses of the League in preventing aggression, the Security Council has been given far greater powers and is authorized to function continuously rather than after an emergency has developed.

The new Secretariat and the International Court of Justice follow in general outlines the similar agencies for the League.¹

The newest and a very important agency is the Economic and Social Council, whose functions are to promote (1) higher standards of living, full employment, and the conditions of economic and social progress and development; (2) solutions to international economic, social, health, and other problems, and international, cultural, and educational cooperation; and (3) universal respect for observance of human rights and fundamental freedoms for all peoples without distinction as to race, language, religion, or sex.

The Economic and Social Council consists of 18 members elected by the General Assembly.² It is authorized to set up such commissions or agencies as an international labor organization, international trade organization, international food and agricultural organization, international monetary fund, international bank for reconstruction and development, international health organization, and international educational, scientific, and cultural organization. The destructiveness of the Second World War and the appearance in its final stages of the atom bomb made it absolutely imperative that the will to peace and international cooperation be engendered in all people in all countries by all the educational and cultural agencies that man can devise. The older notions of education as an instrument of national policy were made obsolete and enormously dangerous when the results of world-wide war were once more made plain for all to see.

National Political Developments

England. At the opening of the twentieth century the Conservatives were in power in England, but the Liberals and labor groups were growing in influence. The trade unions and the Socialists wrangled a good deal about the nature of a new labor party organized in 1899, but by

¹ Trygve Lie of Norway was chosen the first secretary-general, and 15 jurists were appointed to the Court.

² The first members were Belgium, Canada, Chile, China, Colombia, Cuba, Czechoslovakia, France, Greece, India, Lebanon, Norway, Peru, the Ukraine, Russia, the United Kingdom, the United States, and Yugoslavia.

1906 they had composed their differences, and the Labor party emerged as a potent political factor. With the help of the Labor party, the Liberals came back into power in 1906 and began a series of reforms under David Lloyd George, Herbert Asquith, and Winston Churchill.

A series of parliamentary acts regulated hours and working conditions in the mines and factories, awarded workers' compensation for injuries, and set up plans for old-age pension, illness, and unemployment insurance. Heavier taxes were laid upon the wealthy classes, the power of the House of Lords to stop legislation by the House of Commons was completely broken in 1911, and the vote was given to every adult male and to women over thirty years of age. By 1928, universal suffrage had been achieved. After the First World War, socialist and democratic ideals spread, and the Labor party was strong in the 1920's under the leadership of Ramsay MacDonald; but the Conservatives came back into power in 1935 under Stanley Baldwin and later under Neville Chamberlain.

When Chamberlain agreed to the Munich decision in 1938, the storm began to gather and his cabinet fell in 1940. A coalition government was formed under Churchill, who carried out the war program with the aid of Labor and the Liberals as well as of the Conservative party, to which he belonged. During the Second World War, labor sentiment grew rapidly. In the election of July, 1945, the Labor party won a decisive victory, which made Clement Attlee, a Socialist, prime minister.

The labor program that the English people had approved included definite socialistic steps in the direction of (1) nationalization and state ownership of the coal, power, transportation, iron, and steel industries; (2) nationalization of the privately owned Bank of England and the liberalization of credit; (3) broadening of social security, education, and health; (4) and government control of housing, employment, and agriculture to eliminate monopolies and cartels and set up suitable price and wage controls. The trends toward social reform that had begun before the First World War had achieved great impetus by the end of the Second World War.

France. From the opening of the century to the First World War the various Socialist parties of the Left and the Republican parties of the Center were the most powerful groups in the government of France. The Socialists were generally in favor of broad programs of social reform, whereas the Republicans favored more moderate reforms. The conservative parties of the Right represented clerical, royalist, and landed and business interests. Notable laws were the Association Act of 1901, which dissolved religious orders and curbed religious instruction in the schools, and the Separation Act of 1905, which separated the church from the state and stopped payment of salaries to the clergy. By other legisla-

tion, child and woman labor was prohibited; maximum working hours were reduced to 10; and compulsory old-age insurance and pension systems were instituted, along with accident and liability insurance for laborers. After the First World War there was little marked change in the alignment of parties, of which there remained a great number.

When France fell to the Germans in June, 1940, the Third Republic was ended and Marshal Pétain became chief of state under the Vichy government. For 4 years, Pétain and the reactionaries in France, aided by the Nazis, attempted to establish an "authoritative hierarchical society" in which the high officials had to swear personal loyalty and pledge an oath of fidelity to the person of Pétain. Attacks were made upon the ideals of liberty, equality, and fraternity of the Republic, and efforts were made to replace them with the values of "home, country, and work." Parliamentary government was repudiated as undemocratic; real democracy was claimed to rest in a strong national government of the few at the top. The church was brought back into power, and a decree of 1942 canceled the Association Act of 1901, restoring to the religious orders full legal status as public utilities. Anti-Jewish regulations were passed, and, in a remarkable speech, Pétain repudiated liberalism, socialism, and capitalism as foreign importations alien to French thought. This kind of perversion of history showed that the Vichy regime was borrowing much from fascist ideology.

With the liberation of France by the United Nations armies in August, 1944, a provisional government under General Charles de Gaulle was established, in which a Consultative Assembly represented the principal resistance groups in France. In October, 1945, general elections were held to choose representatives for a National Constituent Assembly, whose principal object was to replace the provisional government and lay the groundwork for a permanent government by working out a new constitution for the Fourth Republic. In these elections a decided swing to the left gave the largest single vote to the Communists, next to the Socialists, and third to a new party known as the Popular Republican Movement, composed principally of moderate Center groups. These three parties made up the great majority of the Constituent Assembly, which proceeded after some difficulties to ask General de Gaulle to form the first regular ministry of the Provisional Republic as France turned to the problems of reconstruction and social reform. The first proposal for a new constitution was rejected by the French people in 1946 and a new attempt was made under the growing strength of the Popular Republicans.

Germany. Somewhat as in France, the Socialists were gaining power in the Reichstag of the German Empire in the first decade of the twentieth century under Emperor William II. In the elections of 1912 the

Social Democrats became the largest single party in Germany. They could point to one of the most inclusive social-security programs in the world at that time, including shortened working hours, social insurance, and regulation of working conditions. The Social Democrats could not prevent the onset of the First World War, but they remained a powerful party when the German Republic was established by the Weimar Constitution of 1919; the first government was headed by Friedrich Ebert, a Socialist. The German Republic consisted of some 20 federated states, each with representatives in the Reichstag elected by a large number of political parties somewhat like those in France. In the 1920's, however, the severe depression, widespread unemployment, the decline in industry and enormous inflation led to great unrest, which made the people, and especially the lower middle classes, ripe for Hitler and his National Socialist (Nazi) party. Hitler used all the fascist techniques described earlier to gain a large following. He was appointed chancellor by President von Hindenburg in 1933, and thereupon the Reichstag gave him absolute powers.

Hitler and the Nazis set out promptly to establish complete control over the political, economic, social, and cultural life of Germany. All political parties were abolished, and the Nazi party was proclaimed to be the only legal party, superior even to the state in power. Completely centralized and authoritarian government was established and the independence of the several German states destroyed. Labor unions were wiped out, and one big German Labor Front replaced them. Authoritarian powers were derived from Hitler at the top down through every branch of government. Freedom of speech, assembly, education, and religion was suppressed, and numerous measures were taken to destroy the powers of the Roman Catholic and Protestant churches.

Totalitarian control was exerted over capital and labor, trade and commerce, agriculture, and all the details of personal, social, and family life. The supreme aim was to subordinate everything to the ideals of the Nazi party. Communists, Socialists, and Jews lost their property and citizenship and were thrown into concentration camps, exiled, or killed. The supreme outrage against humanity was the systematic plan for the complete extermination of Jews not only in Germany but in all of Europe. When the Second World War ended, it was found that the Nazis had nearly succeeded and that 80 per cent of Germany's 750,000 Jews had been murdered, to say nothing of the condition of the rest. The documented horrors of the Nazi concentration camps, revealed when United Nations armies invaded Germany, shocked the entire civilized world.

Hitler quickly built up German heavy industry and in 5 years was able to make Germany into the strongest military machine in the world.

Beginning with the remilitarization of the Rhine in 1936 in violation of the Treaty of Versailles, Hitler took one rapid step after another to gain "living space" for Germany by browbeating his neighbors and then conquering most of Europe before the tide of the Second World War turned against him. With the surrender of Germany in May, 1945, the "Third Reich" that was to last 1,000 years came to an end after 12 years of frightful existence. In July, 1945, President Truman, Premier Stalin, and Prime Minister Churchill (later Prime Minister Attlee) met in Berlin to lay the plans for the reconstruction of Germany and to prevent, if possible, the mistakes and shortcomings of the treatment of Germany after the First World War. An Allied Control Council was authorized to be set up for the joint administration of Germany through four areas of occupation to be held by Russia, Great Britain, the United States, and France.

Political principles to be followed by the Allied Control Council were as follows: complete disarmament and demilitarization of Germany; complete destruction of the Nazi party, its ideas, and its institutions; prosecution and trial of war criminals and Nazi leaders; complete control of education to wipe out Nazi and militarist doctrines and promote democratic ideas; encouragement of free and democratic political parties and labor unions; and promotion of freedom of speech, press, and religion. In the economic field the control was aimed at preventing production of all military goods and industries that could support a war economy, decentralizing German economy to eliminate monopolies, trusts, and cartels, encouraging agriculture and peacetime industries, controlling import and export trade and scientific research, and exacting reparations to help the war-torn countries to restore their economies. It was expected that occupation of Germany would continue until this program had been achieved and until the military governments could progressively turn the control over to responsible German authorities. It was clear that reeducation of the Germans was an absolute essential in the whole process of achieving a democratic and peaceful Germany, one of the keys to a peaceful Europe and world.

Italy. In the early decades of the twentieth century the economic and political situation in Italy became more and more chaotic as the First World War resulted in widespread unemployment, high prices, and general dissatisfaction. In this situation Benito Mussolini, formerly a Socialist, took advantage of the socialist desires of the people and organized his Fascist party, which gained popularity by proposing heavy taxes on the rich but at the same time turned strong nationalistic and patriotic feelings against the Communists in Italy. Using the fascist techniques already described, Mussolini was able to grasp the reins of government and become premier in 1922. He immediately set out to bring all the

affairs of the state into his hands. His party members were put into all high offices, election laws were changed to make it certain that the party controlled all lower positions, and national unions of workers and employers were organized under strict control of the party and the state.

In 1929, Mussolini gained the support of the Roman Catholic Church in his agreement with the Pope, according to which the state recognized the independence of the Vatican, restored its lands, and made the Roman Catholic Church the state church. In return, the Pope recognized Mussolini's Italian government and renounced the old claim to political control of the Papal States, which had been maintained since the forming of the Italian kingdom in the 1870's. Mussolini built up Italy's army and announced his intention of regaining the lost colonies and of making the Mediterranean once more an Italian lake as in the days of the Roman Empire. He even tried to imitate Hitler's attacks on the Jews and maintain the Aryan racial myth concerning racially pure Italians. He was glad to enter the war by "stabbing France in the back," but he was also the first of the Axis to yield.

As the United Nations invaded Sicily, Victor Emmanuel III ousted Mussolini and appointed Marshal Badoglio as premier in July, 1943. Italy surrendered in September and soon repeated its reversal of the First World War and became a cobelligerent with the United Nations. Under the direction of the United Nations command, Italy began to restore political freedom in a very difficult internal situation. Mussolini's career ended in April, 1945, when Italian partisans captured and executed him summarily. There was public reviling of his body in the streets of Milan; the first of the modern dictators had met the most ignoble death possible. As the first of the Axis members to capitulate, Italy was destined to have one of the most difficult times in reconstruction. After a series of attempts to form a stable government, the Italian people voted in June, 1946, to discard their monarchy and adopt a republican form of government.

Russia. In the first half of the twentieth century, Russia changed from a czarist empire on the fringes of European politics to a Soviet Socialist Republic that soon became one of the world's great industrial and military powers. After the Russo-Japanese War of 1904 to 1905, the Revolution of 1905 achieved a constitution and the recognition of political parties by the czar. By the opening of the First World War, there were three reform parties in Russia: the Constitutional Democratic party, composed largely of middle-class people who desired a constitutional government on the model of the Western powers; the Social Revolutionary party, aimed at more radical reform, such as giving land to the peasants; and the Socialist party, following Marxist doctrines, which was split between the Mensheviks (minority), who wanted gradual re-

form, and the Bolsheviks (majority), who advocated the immediate overthrow of the government and the establishment of the dictatorship of the proletariat.

When the First World War was going badly for Russia, the czar was overthrown (March, 1917) and a provisional government of middle-class Constitutional Democrats was set up. Power soon passed to the more radical Aleksandr Feodorovich Kerenski, who promised the Allies that Russia would continue the war. But, with strong opposition from the Constitutional Democrats and Bolsheviks, Kerenski could not continue in power. Taking matters into their own hands, the Bolsheviks seized the government in the revolution of November, 1917, under Nicolay Lenin. A separate peace was made with Germany in the Treaty of Brest Litovsk in March, 1918.

From then until 1924 Lenin was the dominant figure in Russia, and the Communist party became the guiding agency for the proletariat until such time as the people could manage self-government, for in theory the dictatorship of the Communist party was to be temporary. The Communist party set out to revolutionize not only the political structure, but also the economic, social, and educational structure of Russia. In the view of the party the middle and upper classes had to be liquidated to achieve these aims. Thus the Constitution of 1918 gave political privileges to all over eighteen who were defined as productive workers or military personnel, and all others were classified as capitalists and therefore as enemies of the people. Under a special commission known as the Cheka and with the help of the Red Army under Leon Trotsky the process of liquidation proceeded rapidly. The people were organized into a series of local councils, or soviets, which elected higher representatives, culminating in the All-Russian Congress, which elected the Central Executive Committee as the highest legislative body in Russia. Actually, the affairs of these governmental agencies were firmly in the hands of the Communist party at each level.

Lenin set out immediately upon a course of complete nationalization of land and industry, but by 1921 the resistance of the peasants was so strong that the New Economic Policy (N.E.P.) was instituted, which gave greater freedom to private ownership in industry and to the peasants to sell their grain without such rigid state control. Conditions improved considerably for a time. In 1924, when Lenin died, Joseph Stalin became head of the party and began to build up a strong nationalist and communist Russia.

In 1928 the N.E.P. was discarded, and the first Five Year Plan was adopted to nationalize all private property and accelerate the production of heavy industrial goods for manufacturing and farming. The land was organized into large-scale collective farms owned by the state and

worked by the peasants. Those who owned private property were brought into cooperative farms on a collective basis in order to utilize scientific farming methods and farm machinery. Again there was great resistance to these measures, and production fell off until large-scale famine in 1932 to 1933 broke down the resistance. In 1933 the second Five Year Plan to increase the production of consumers' goods was begun. Opposition was apparently still widespread; however, in 1936 to 1938, a series of purges and trials wiped out most of the opposition.

Through these dictatorial methods, some of which approached the totalitarian methods of Germany and Italy, the Communist party was able in 20 years to expand enormously the industrial potential of Russia and to bring its educational, social, and cultural life under party control for party political and economic aims. A third Five Year Plan was announced in 1938, but it was stopped short of its goal by the German invasion in 1941. In February, 1946, Stalin announced a fourth Five Year Plan to increase enormously Russian production of steel, iron, coal, and oil. Great opposition to Russian Communism developed in the Western democracies in the 1920's and 1930's, but they were glad when Russia joined with them in international cooperation to defeat the Axis. The most fundamental social problem of the postwar world is whether the democracies can continue the cooperation with Communist Russia to establish a stable, just, and enduring peace.

Economic and Social Institutions

So much has already been said in the preceding sections about economic developments as related to political events that only a few generalizations will be made here. It is plain that industrialism in the twentieth century became the dominant economic fact above all others. The speed with which technological advances took place was breath-taking, and the most dramatic examples came to view in the greatly accelerated industrial strides that accompanied the Second World War. In a few short years the first feeble flying machine of the Wright brothers had been developed into 600-mile-an-hour pursuit planes and into transport planes that rendered no place on earth more than 50 or 60 hours away from any other place on earth. Jet-propelled rocket planes achieving 1,000 miles an hour were predicted for the near future. The faint wireless messages of Marconi had become the globe-circling network of powerful radio stations and the wonders of radar that reached the moon. Even the enormous destruction of the First World War paled into insignificance before the "block busters" and faster than sound V bombs of the Second World War.

Above all and almost beyond comprehension in its social implications was the release of atomic energy that stunned the world with the atomic

bomb. If, up to now, people around the world had been deaf and blind to the developing interdependence of nations arising from the development of industrialism, they could no longer disregard it—or did so at their peril. Even if some of the early claims were exaggerated, it was more likely that the ramifications of the atomic age would outstrip the imagination. The world's hope was that it would not outrun social intelligence.

As technological industrialism made giant strides, more and more people throughout the world began to realize that the old conceptions of laissez-faire capitalism were becoming outmoded. The interdependence of the world required cooperative effort, and nations could no longer rely upon individualistic methods of production and distribution. Believers in capitalism itself realized this fact in their actual practice, despite the stated doctrines of free competition and individual effort. Capitalism in the twentieth century changed from industrial capitalism (a second stage of capitalism as described on pages 387 to 388) to finance and corporate capitalism. The needs of large-scale financing and large-scale production led to corporate ownership, for which only large-scale banking and credit arrangements were suitable. This led in many countries to the growth of monopolies and international cartels to control production, distribution, and prices. World resources of raw materials were controlled and developed by these large-scale enterprises, and restraint of trade through high tariffs became a threat to the economic welfare of all nations.

This fact was dramatically brought home when the ordinary sources of raw materials, rubber, oil, food, and many other products, were cut off by the successive events of the Second World War. This situation led to the scientific search for synthetic substitutes for these and other products. More important, however, was the realization that international efforts to control and stimulate world trade were imperative. Thus, the United Nations began to take steps toward cooperative commercial and financial arrangements. The economic welfare of one nation was found to be inextricably bound up with the welfare of all. This meant that the old conceptions of imperialistic domination of some peoples by others were also inappropriate in an interdependent world. No nation could live entirely by itself, nor could it, any longer, live by exploiting other nations.

Religious Institutions

The churches had their ups and downs in the twentieth century, but they continued to play a large role in the life of the people. In France the Roman Catholic Church was dispossessed of its privileged state position by the Third Republic's Association Act of 1901 and the Separation

tion Act of 1905, but continued largely to be the preferred church of those Frenchmen who adhered to any religious faith. Under the Vichy regime the church began to win back some of its privileges, but these are likely to be short-lived under the Fourth Republic. The Clerical outlook continued to play a strong political role in France although subordinate to that of the Socialist and Republican parties.

In Italy the Roman Catholic Church continued to be by all odds the church of the people, surviving the Fascist dictatorship and even gaining political power as a result of the agreement in 1929 with Mussolini's government. As a world-wide institution the church was an out-and-out opponent of communism everywhere, as well as of the Nazis. It did not take the same strong stand against Fascism in Italy and Spain. In England, the Church of England continued its preferred and central place alongside the strong Protestant churches.

In Germany under the Nazis the churches received their most severe setbacks. Hitler took every means at his disposal to attack the clergy, destroy their power, and wean the younger generation away from religious teachings. The Nazis tried to set up a Nazi state church devoid of Christianity and persecuted Roman Catholic, Protestant, and especially Jewish leaders. By court order and otherwise, children were taken from parents who tried to teach Christianity or pacifism or resistance to Nazi ideas. Hitler tried to rewrite Christian history, claiming that divine guidance was on his side; in his anti-Jewish outbursts he even claimed that Christ was not a Jew but a good German Aryan. The churches, however, held out as best they could and throughout the Nazi regime constituted one of the few opposition forces to the Nazis. With the victory of the United Nations the German churches once more became free to undertake their activities.

In Russia before the Communist revolution the Greek Orthodox Church held a dominant position in the political life of the country, and the clergy ranked with the nobility among the privileged classes. When the Communists came into power, they immediately set about to liquidate the church as a bulwark of the old capitalistic and czarist regime. Karl Marx had written that religion is the "opium of the people"; Lenin had echoed this doctrine; and Stalin asserted that the party stood for science, whereas religion was diametrically opposed to science. Church properties were confiscated, and the clergy was forbidden to preach, teach, or undertake charitable activities. In educational and cultural activities, the youth were taught that Communism had no place for the old religion.

In the new Constitution of 1936, however, the principle of religious freedom was stated, but few gains were made by the church until the Second World War, when more official encouragement was given by the

government. The church was no longer considered to be a threat to the security of the state, for it had supported the war against Germany, and the party was conscious of the attitudes of the Western democracies toward freedom of religion. Although the church by no means recovered its lost ground, it was estimated in 1945 that there were more than 16,000 Greek Orthodox churches functioning in the Soviet Union compared with 54,000 before the revolution. The church remained definitely in a subordinate position, but it was apparent that some gains were being made.

In their social points of view the churches everywhere were likely to be more conservative than not. The attacks of communism and socialism upon the churches reinforced the determination of many of them to resist radical or thoroughgoing social change. However, in various ways, some elements in the various churches began to preach more effectively the "social gospel" and to apply Christian ethics to economic and social affairs in order to achieve a greater social justice. Pope Pius XI reiterated the pronouncement of Pope Leo XIII in favor of labor unionism, and the Malvern Conference in England outlined a forward-looking social program for non-Roman Catholic Christianity as viewed by reform elements in the Church of England.

THE IDEAS MEN LIVED BY

In the twentieth century the social creeds of fascism, communism, socialism, and democracy provided rallying points for men's loyalties in much the same way as religious creeds had done in the time of the Reformation. The great world wars of the twentieth century symbolized the fact that nationalistic and social creeds were at the root of world conflict rather than the sectarian creeds that helped to account for the religious wars of the sixteenth and seventeenth centuries. It looked for a while as though the totalitarian countries were going to be more successful than the democratic nations in giving their peoples the kind of faith and assurance that the religious leaders of the Reformation had been able to give their followers.

The secular forces of three centuries had reinforced nationalism, industrialism, fascism, socialism, and democracy at the expense of the all-embracing religious loyalties of an earlier age. Not so dramatic for much of the early twentieth century, but perhaps fully as fundamental in changing men's ideas in the long run, was the development of modern science. At the end of the Second World War the atomic bomb made the development of science even more dramatic than the other forces—so dramatic that all else seemed to become relatively insignificant in the face of the possibilities for destruction that it opened up. It made im-

perative the decision as to whether man would promote science for human welfare or for annihilation of the race.

World View

The atomic bomb that marked the end of the Second World War was one more step in the new developments in science that had begun late in the nineteenth century and progressed ever more rapidly in the twentieth century. The new scientific discoveries led to a conception of the universe and of the nature of matter that overturned the nineteenth-century conception of science that had rested upon Newtonian physics. It also seemed to make necessary a revision of the traditional philosophic and religious conceptions of dualistic idealism. The rigidity of absolute natural laws that formed the basis of Newtonian physics was giving way to doctrines of relativity in the astronomical universe and of uncertainty in the subatomic universe.

The astronomers and physicists began to describe a new cosmos of unimaginable size in which our sun became an insignificant unit in our galaxy of astronomical bodies and our galaxy only one of perhaps a million galaxies of like proportions. Matter was no longer regarded as hard, rigid, indestructible, and obedient to certain fixed laws, as the laws of gravitation and the law of cause and effect in the Newtonian sense; it came to be looked upon as a way in which energy is organized. Somehow, the ultimate physical reality was conceived to be energy, and the atom became, not a unitary and integral body, but a physical-energy system made up of electrons and neutrons operating in complex ways. The theories of relativity, quantum physics, electromechanics, and radioactivity produced a whole new conception of matter and energy.

The only way in which such relations could adequately be described was by means of a new mathematics to replace Newton's and Euclid's. Actual investigations with new instruments such as the atom-smashing cyclotron seemed to substantiate the calculations of such theoretical mathematicians as Henri Poincaré, Max Planck, and Albert Einstein. As the atom was broken up, analyzed, and studied, it became possible to produce hitherto unknown physical elements and to transmute matter from one form to another. As discovery followed discovery in the physicists' laboratories, it became clear that the atomic age began, not with the dropping of the atomic bomb on Japan, but with the mathematicians and physicists who were beginning to lay the foundations in the opening years of the twentieth century. At all events, a reformulation of the traditional views of the universe was being forced by the new science of the twentieth century.

Human Nature

Although man seemed to be relegated to an incredibly insignificant place in comparison with the astrophysical universe that was being visualized by science, the twentieth century began to pay more attention to the study of human nature. In general, the doctrines of evolution came to be more widely accepted than ever as anthropologists studied the origins of the race and psychologists studied the foundations of human behavior. Anthropology showed that man developed physically and culturally as he interacted with his environment over the long centuries of human development. Wherever science was free, anthropologists produced plenty of evidence to disprove the Nazi and fascist theories of racial purity and race superiority.

Anthropologists agreed that all men have a common ancestor and that whatever differences can be found among groups of people in skin or eye color, body size, shape of head or nose, or facial characteristics are the relatively unimportant differences. Even if the major races are classified as Caucasoid, Mongoloid, and Negroid, the range of differences within one group is far greater than the differences among groups. Ethnic stocks have been so dispersed and mixed together for so long in all parts of the world that there is no such thing as a "pure" race. The differences among groups of people were agreed to be principally differences of culture, language, custom, and education.

Differences among individuals, however, were conceded to be great, no matter what the racial or ethnic background. Psychology turned to the matter of individual differences with enthusiasm. Much of this interest was devoted to a scientific investigation of sensory perceptions and motor reactions, following the lead of Wundt and other European psychophysicists. Another development in Europe that was to have great influence upon the conception of human nature was the development of psychoanalysis as worked out principally by Sigmund Freud, Alfred Adler, and Carl Gustav Jung. Their interest was primarily in explaining the reasons for mental abnormalities in adults. They all agreed in tracing back the difficulties in large part to the conflicts between individual and social desires that develop in the early years of childhood, principally between the ages of two to five.

The psychoanalysts held to a basically dualistic conception of mind and body as the ingredients of human nature, but they broke with the dominantly rationalistic conceptions that were current at the beginning of the twentieth century. They maintained that the mind is dualistic too, consisting of the conscious mind of rational choice and the subconscious mind that really directs most human activities. As ideas and beliefs come into conflict within an individual, he must meet the vary-

ing demands of social pressures. Some ideas and beliefs must therefore be suppressed, but rather than being sloughed off they are driven down to the subconscious level, where they continue to operate and often lead to abnormal behavior.

Freud explained the origin of most suppressed ideas and desires as due to interference with sex desires, defining sex broadly as the total driving force of the individual. Adler interpreted the basic human drive as the desire for power that comes when the child's sense of inferiority and helplessness in the face of social pressures leads him to try to achieve superiority. When blocked in these efforts, his drives to power are suppressed in childhood and then reassert themselves, usually in the form of abnormal or socially undesirable behavior, in adulthood. Jung defined the total driving force as the desire to express one's own individuality against the outside social pressures to conform.

Despite much opposition to the specific interpretations of the psychoanalysts, they have had enormous influence in turning the attention of educators to the importance of the early childhood years in the framing of human behavior, and they were forerunners of the mental-hygiene emphasis that began to be important later in the century. It meant that teachers and parents needed to be educated to be aware of the powerful impact of the early years upon the personality development of their children.

Learning and Intelligence

Scientific psychology carried forward its attack upon the traditional rationalistic conceptions and reinforced the empirical emphasis upon sense experience as the fundamental basis of learning. Three points of view were widely accepted in the early twentieth century; they have often been called structuralism, functionalism, and behaviorism. Structuralists set out to analyze conscious mental states into knowing, feeling, and willing. With reference to knowing, they found sensations and perceptions to be the primary ingredients of simple mental states. Complex mental images and ideas are then built up by the process of association, in which sensations and images are linked together in the individual's experience. In other words, mental states that occur together will recur together when similar stimuli appear at a later time. The method of structuralism was principally that of introspective analysis and classification of mental states.

Functionalists tried to go beyond the structuralists by applying the evolutionary theory more fully to human behavior. They therefore looked upon mental activity as a result of the attempt of the individual to adapt to his environment. They thought of the mind as an active,

dynamic matter rather than as a static structure of mental states. This position will be treated at greater length in Chap. XXI.

Behaviorism went beyond both these to apply rigorous scientific methods to human behavior. Behaviorists concentrated on studying overt behavior, rejecting the structuralist and functionalist interest in sensation, perception, images, idea, consciousness, will, and so on. They refused to speak of "mind" or mental activity and spoke only of behavior as it could be observed from the outside. They leaned heavily upon the work of Vladimir Bechterev and Ivan Petrovich Pavlov in Russia, who experimented with animals to arrive at the principles of the conditioned reflex. By presenting food to a dog and ringing a bell at the same time under controlled conditions, Pavlov discovered that simply ringing the bell could call out the salivary flow which originally the food had produced. The principle was thus that, if two stimuli (food and bell), one of which is strong enough to evoke a reflex (salivary flow), occur often enough together, the second or formerly inadequate stimulus (bell) will be sufficient to evoke the response. The behaviorists (principally in America) began to build upon the fundamental principles of the conditioned reflex a whole theory of learning in which all the so-called "higher" processes of thought were considered to be built up by a like conditioning of responses to associated stimuli.

Gradually some psychologists in Europe and America became dissatisfied alike with the analytical methods of structuralism and the purely objective methods of the conditioned reflex. This dissatisfaction took the form of a fourth point of view having its origin in Germany and receiving the name Gestalt psychology. Under the leadership of Max Wertheimer, Wolfgang Köhler, and Kurt Koffka in the second decade of the twentieth century, the Gestaltists began to deny the principle that learning results from the connection between a specific stimulus and a specific response and the association of stimulus-response reflexes. They argued rather that the total situation of the learning experience affects the learning process and that the total activity of the body is involved in learning, not simply the sensory and motor nerves.

Gestalt psychology thus stressed the organic nature of the learning process. The learner responds as an organic whole, and he responds to a whole situation, not merely in an automatic, mechanistic, or piecemeal fashion. Insight and purposes become important elements in learning. Mere repetition was not considered sufficient for learning unless the individual by insight acquires the same goal for his activity that the teacher or experimenter has. Gestaltists also emphasized that growth and maturation are important as means by which learners come to see the significance of the learning situation for them as they operate in interaction with their environment. The Gestalt psychology played an

important part in influencing the development of a newer psychological outlook in America in the 1920's and 1930's.

Another very influential development in Europe was the testing procedures worked out by Alfred Binet and T. Simon in France. They were primarily interested in quickly identifying subnormal children, with capacities below those of normal children, in order to give them special help. Binet assumed with the functionalists that the mind is made up of different functions such as association, memory, motor skill, attention, reasoning, and will, all of which can be measured independently. He further assumed that these functions develop at about the same rate, so that a measurement of one or more functions at a given time will give a clue to the status of the others. He therefore worked out tests of association, memory, and attention, classified the items according to difficulty, and arrived at norms for different age levels. On this basis he devised the conception of "mental age," which gives a somewhat objective standard for the mental age of five-year-olds, six-year-olds, and so on. Binet's beginnings were rapidly picked up and expanded into a powerful intelligence-testing movement by an important group of psychologists in America during the early twentieth century.

Social Role of the Arts and Sciences

Language arts and humanities. The twentieth century witnessed notable achievements in the creative as well as the scholarly approach to the linguistic and literary arts. Scholars in the principal countries amassed enormous bodies of knowledge in philology and textual and literary criticism. Creative efforts in literature, drama, and poetry expressed the social trends of the new capitalistic industrialism, social reform, science, and Freudian psychology. In general, the romantic and sentimental tenor of nineteenth-century literature began to give way to a more realistic description of social forces and individual expressions of hope, despair, and cynicism. Outstanding writers of the novel in English were Joseph Conrad, John Galsworthy, Virginia Woolf, D. H. Lawrence, Aldous Huxley, H. G. Wells, Arnold Bennett, George Moore, and James Joyce; in French, Anatole France, Marcel Proust, André Gide, and Jules Romains; in German, Thomas Mann, Franz Werfel, and Arnold Zweig; in Russian, Maxim Gorky, Alexei Tolstoy, M. Sholokhov, and Ilya Ehrenbourg. In dramatic literature the realistic social drama was interspersed with romantic sentiment, mysticism, and comedy in the works of such writers as George Bernard Shaw, John Galsworthy, Sir James Barrie, William Butler Yeats, and Sean O'Casey; Edmond Rostand; Maurice Maeterlinck; Luigi Pirandello; and Hermann Sudermann and Gerhart Hauptmann. Poetry found important expression in the works

of John Masefield, D. H. Lawrence, A. E. Housman, T. S. Eliot, and Stefan George.

Mathematics and science. Some of the world-shattering developments in science have already been mentioned. Basic to the development of science was the groundwork laid in a new mathematics that questioned the underlying assumptions of Euclidean geometry with respect to space, time, motion, lines, and planes. Enormous strides were made by Henri Poincaré, Max Planck, and Albert Einstein in developing a theory of functions, quantum, and relativity and in applying them to astrophysics, physics, and physical chemistry. In experimental and mathematical physics the nature of the atom was explored by Niels Bohr, Louis de Broglie, Erwin Schrodinger, and Werner Heisenberg. The atom was described as a complete physical system, analogous to the solar system, in which the atom's nucleus acts as the sun, the electrons revolving around it in much the same way as the planets revolve about the sun. This led to the theory that the atom is a pulsating energy system of electricity sending off waves of radiation or, as Einstein and Planck said, releasing energy in particles and corpuscles like bullets, called *quanta*.

Another approach to describing the nature of the atom came from the discoveries of X rays, radioactivity, and radium by Sir William Crookes, Wilhelm Konrad Roentgen, A. Henri Becquerel, and Marie and Pierre Curie. Radioactivity and electronics were further elaborated by Ernest Rutherford, Frederick Soddy, J. J. Thomson, Harold Urey, C. T. R. Wilson, Robert A. Millikan, and Ernest O. Lawrence.

The lines between organic and inorganic chemistry began to be broken down as synthetic production of substances was developed and as physiological chemistry and endocrinology revealed the effects of calories, vitamins, glands, and drugs upon the human system. Applications of such discoveries to medicine and surgery took the form of new developments in anesthetics, antiseptics, X rays, and bacteriology. The syphilis germ was isolated by Fritz Schaudinn; a specific blood test was formulated by August von Wassermann; and the use of salvarsan in the specific treatment of syphilis was discovered by Paul Ehrlich. The wonder-working drugs of the sulfa and penicillin families made great inroads upon many diseases. Studies and investigations in physical geography, geology, and other sciences kept pace. In philosophy, traditional idealism and Scholasticism were defended by Benedetto Croce and Jacques Maritain, but the applications of science and mathematics to philosophy and logic were increasingly worked out in the writings of such men as Bertrand Russell, A. N. Whitehead, and J. B. S. Haldane.

Social sciences. Vast research and investigations concerning the nature of society and social forces from an objective scientific point of view as well as from that of various social aspects marked the develop-

ment of the social sciences. Historical investigation and writing moved away from military and political annals to the tracing of the evolution of world civilization and of national cultures and the interpretation of the growth and decline of social institutions. Outstanding histories were written by Karl Lamprecht, Oswald Spengler, Henri Berr, Georges Renard, and H. G. Wells. Sociological studies were made by Vilfredo Pareto, Gustav Ratzenhofer, Emile Durkheim, Leonard T. Hobhouse, and Leopold von Wiese. A brilliant company of writers on economics and political science included Werner Sombart, Max Weber, Durkheim, Sidney and Beatrice Webb, R. H. Tawney, J. A. Hobson, Harold J. Laski, and Graham Wallas. Most were conscious of the imperative need to bring the social sciences to the level of effectiveness reached by the physical sciences and to control human institutions for the welfare of man instead of allowing chance to determine social progress.

The Arts. In architecture the development of industrial urban civilization pointed the way to architectural forms that would not only express a functional usefulness in design but meet the needs of mass housing and better community planning. Outstanding architects included Eliel Saarinen, Peter Behrens, Walter Gropius, Le Corbusier, and J. J. P. Oud. Painting took several forms: analytical and geometric compositions in the cubism of Pablo Picasso and Georges Bracque; the colorful emotionalism of Henri Matisse, André Derain, Maurice de Vlaminck; the futurism of Giacomo Balla and Marcel Duchamp; the expressionism of George Grosz; and the "dadaism" and surrealism of Salvador Dali. These newer attempts at individual expression often failed of public appreciation of their value. In sculpture the public could more easily understand the rather traditional and conservative works of Aristide Malliol, Carl Milles, and Ivan Mestrovic. In music, likewise, public appreciation was more quickly forthcoming for the modern compositions of Claude Debussy, Frederick Delius, Cyril Scott, Jean Sibelius, Maurice Ravel, Igor Stravinski, Arnold Schönberg, and Dmitri Shostakovich.

CHAPTER XX

EDUCATION IN TWENTIETH-CENTURY EUROPE

ORGANIZATION AND ADMINISTRATION OF EDUCATIONAL INSTITUTIONS

In general, European school systems in the twentieth century moved in the direction of greater centralized state and secular control. The changes in England and France were more gradual; those in Nazi Germany, Fascist Italy, and Communist Russia were more dramatic and thoroughgoing. The most impressive fact was the realization that education is an important agency of political control. This took different forms in different countries, but the basic trends were clearly represented in England, France, Germany, and Russia.

England

The educational changes in England were marked by a number of committee reports, debates, and tentative laws that were not fully carried out. In 50 years, however, definite progress was made toward establishing a more unified, public, and secular system of schools. This development can be described in the light of the three major education acts of 1902, 1918, and 1944.

Balfour Act of 1902. This act was important because it set the basic character of public control until near the end of the Second World War. It abolished the old school boards and handed over public educational responsibility to the newly organized agencies of local government, namely, county councils, county boroughs, boroughs, and urban districts, which could levy taxes for the support of secondary as well as elementary schools. The old "board schools" came to be known as "council schools," that is, schools provided at public expense and under public control of the local councils. Privately and religiously sponsored schools continued to be known as "voluntary" schools. Conservative and ecclesiastical groups were able to insert provisions into the act that gave public tax funds to these voluntary schools. Liberals and reform church groups fought this aspect of the law—but to no avail—because it meant public support of religious instruction, especially favoring the Church of England.

In 1902 there were some 5,800 board schools and 14,000 voluntary schools. Inasmuch as the voluntary schools were older and in need of funds to bring them up to standard, it was decided that the easiest way to make educational facilities available to larger numbers of children was to subsidize the already existing voluntary schools. This dual system led to endless discussion and confusion concerning matters of control, finance, and religious instruction. When the Liberal and Labor parties came to power in 1905, they began to pass legislation to provide meals for poor children, nursery schools, medical care, recreation, and other facilities, but they could not remove the religious emphasis from the public schools.

Fisher Act of 1918. Out of the reform movement of the First World War came the Education Act of 1918, which made attendance compulsory to age fourteen, required part-time attendance at continuation schools to age sixteen (after 7 years, to age eighteen), and removed all fees for public elementary schools. The local educational authorities were to impose taxes themselves and receive funds from the National Board of Education in order to carry out their plans for a thoroughgoing system of public elementary and secondary education, including continued support for the voluntary schools. Local educational authorities could provide nursery schools for children under five years, extend medical care, physical education, and recreation, and provide more scholarships to secondary schools. In general, the theory of control was that the local educational authorities would have considerable freedom to provide education to meet their needs, along with stimulus, advice, and suggestions from the National Board of Education, which had the power to inspect both public and voluntary schools. These rather elaborate proposals, however, were never realized to any extent because the economy drives by conservative groups cut down educational budgets in the early 1920's. Further acts in 1921 and 1936 tried to realize some of these provisions, but they did not achieve a thoroughgoing application.

Education Act of 1944. The movement for thorough reform, however, gained strength in the late 1930's and during the years of the Second World War, and finally a white paper on educational reconstruction was presented to Parliament in 1943 by R. A. Butler, president of the National Board of Education, the major proposals of which became the Education Act of 1944. These proposals were promoted by the Trades Union Congress, Cooperative Union, National Union of Teachers, and the Workers' Educational Association, along with the Labor party and liberals in the Conservative party. The provisions of the act would gradually extend the principle of free public education for all.

The National Board of Education was transformed into a Ministry of Education, which was to have greater centralized powers of leadership,

control, and direction. The local educational authorities were now principally two, the county councils and the county-borough councils, which were to submit complete plans for the development of education in their jurisdictions for approval by the new minister of education. Each local educational authority was to make provision or secure appropriate facilities for three stages of education, somewhat analogous in principle to the ladder system, in which every child would have a chance to progress as far as his needs and abilities would carry him. The three stages were as follows: *Primary education* included ages two through eleven; nursery schools or nursery classes were to be provided for children from two to five and separate primary schools from five through eleven. *Secondary education* was to include ages twelve through eighteen; attendance was to be compulsory through age fifteen and through age sixteen as soon as practicable. *Further education* was defined as being all education beyond the school-leaving age of fifteen or sixteen; it included compulsory attendance at county colleges for 1 day a week or 2 half days a week through age eighteen for those who were not in full-time attendance at some other educational institution; it included adult education as well as technical, commercial, and art education.

Provision was made for several kinds of control and support of primary and secondary schools. (1) *County schools* (formerly council schools) were entirely supported and controlled by the public local educational authorities. (2) *Voluntary schools* were to be designated as (a) "aided schools," in which the private managers paid half of the expenses of repair and alteration to bring the school up to standard and the managers were to appoint and dismiss teachers and conduct denominational religious instruction; (b) "controlled schools," in which the local educational authority took on complete financial responsibility and appointed and dismissed teachers with approval of the private managers; and (c) "special-agreement schools," which had begun plans for joint public and private support under the Act of 1936. (3) *Assisted schools* were all private and religious schools that received some public funds but were not maintained by the local educational authority. (4) *Independent schools* (principally the old "public schools") were all other private schools and had to be registered and inspected by the ministry of education. In these ways the power and control of public-education authorities were extended by utilizing and improving the private schools already in existence rather than by building a new public system of schools.

The provisions that caused the most concern and that were likely to be a constant source of difficulty had to do with religious education. The act provided that all county and voluntary schools should begin each day with collective worship of a nondenominational kind for all pupils and also that religious instruction should be given in all schools.

the pupils to be excused if parents requested it. In county schools the religious instruction was to be nondenominational and in accordance with an agreed-upon syllabus drawn up by a conference of four committees representing the Church of England, other denominations in the local community, teachers' associations, and the local educational authority. In controlled schools the agreed syllabus was to be taught, along with denominational instruction for not more than two periods a week for those pupils whose parents desired it, such instruction to be given by "reserved teachers," who were to be appointed for the purpose. The reserved teachers were not to comprise more than one-fifth of the school's staff. In aided schools, denominational religious instruction was to be under the control of the manager, but the agreed syllabus might be taught to those pupils whose parents preferred it. No teacher was to be disqualified because of his religious views in county, controlled, or special-agreement schools. This all meant that the religious element remained strong in English schools and was therefore likely to be a matter of controversy for some years to come.

General provisions of the act included such principles as the following: primary and secondary education to be conducted in separate schools; selection of pupils for secondary education to be based not upon special-place examinations at the age of eleven as formerly but upon the pupil's entire record and prospects; education to be provided according to the parents' wishes insofar as possible, including boarding-school provisions; special provisions made in separate schools or classes for any disability of mind or body; free medical inspection and treatment; free milk, meals, and clothing for those who needed them; enhanced facilities for recreation, social, and physical training in camps, playing fields, day centers, playgrounds, and swimming pools; and prohibition of child labor or any employment that the local educational authorities deemed harmful to the pupils' health or educational opportunities. As the Second World War ended, it was clear that England had made major gains in achieving at last a more truly unified and democratic form of national education by the characteristic methods of gradualism and compromise. Whereas in 1944 only 1 out of 10 English children had the opportunity for secondary education and far fewer for higher education, the chances were that the way would increasingly be opened for greater opportunities for more children to go farther up the educational ladder.

France

Third Republic. Under the Third Republic, France maintained its centralized system and its stand against religious instruction in the public schools. The association law in 1901 had exerted state control over those religious orders which were still allowed to teach in public or pri-

vate schools, and the Separation Act of 1905 had ruled that within 10 years all teachers in elementary schools were to be laymen and all religious teaching orders suppressed. The agitation for religious instruction from ecclesiastical quarters did not cease, but the Socialist and Republican forces beat down all such attempts. Private schools, most of which were religious institutions, continued to exist and to enroll, perhaps a third of French children, but they had to be approved by the Ministry of Education and could not be conducted by a religious order.

Meanwhile, the French educational system remained dualistic and class-conscious. Primary education remained almost the sole provision for the lower classes, secondary education being reserved for the upper classes. Sporadic attempts were made to make the secondary schools available to lower-class children through scholarships, but not much progress was achieved. More attention was gradually given to a practical education in the higher primary schools and to technical and trade schools beyond the higher primary schools, but the secondary schools remained virtually aloof from contamination from below.

Following the First World War, considerable agitation was aroused by certain groups, particularly of war veterans, who urged a unitary school system for all, often referred to as the *école unique*. According to this system, free education would be available to all children, as far up the educational ladder as possible, including the university faculties. These agitations urged better trade and technical instruction, more continuation schools, and better opportunities for girls. However, the academic conservatism of the school system, dominated as it was by the aristocratic conception of secondary education, made the few gains negligible. In 1933, tuition fees began to be abolished for the *lycée*, beginning with the lowest class and then adding one class each year until all six grades were entirely free. This brought the process up to the opening of the Second World War.

Vichy France. Along with taking complete political control into his own hands after the fall of France in 1940, Marshal Pétain set about to reinstate the religious element in French schools. This attempt took two forms: an effort to reestablish religious instruction in state schools, and the revival of church teaching orders in their own religious schools, to which state money would be given. Under the Third Republic, no religious instruction in public schools had been permitted, but a half holiday a week had been allotted to allow students to receive religious instruction out of school if parents desired. Under a decree early in 1941, it was planned to give religious instruction on Thursday mornings in or near the school and to include 1½ hours of religious instruction in the regular course of study. This, of course, met great opposition from teachers who had been trained in the secular outlook, and sharp contro-

versies arose between local teachers and local priests. Later in 1941 this decree was rescinded, but much damage had been done by reopening the issue.

In 1942 the ban on religious teaching orders dating back to 1901 and 1905 was lifted; they were given legal status and privileges by the state; and state funds were allocated to the religious schools. German authorities, seeing that dissension within France could be stimulated by such methods, encouraged the granting of state funds to the independent religious schools, which thereupon gained more power. In 1941 they had enrolled 1,200,000 students. In this way, religious controversies again became one of the most serious internal difficulties in France. Reinforcement of class lines was also a divisive technique. No transfer from primary to secondary education was allowed without a special examination, and tuition fees for secondary schools were restored to make the transfer still more difficult.

Fourth Republic. With the reestablishment of the provisional government in 1944, attention was again directed to the reform of the educational system. As it became clear that Socialist, Communist, and Republican parties were again to dominate French politics, it seemed likely that the public schools would revert to their secular policies, and public support of religious schools would be withdrawn. A Committee for the Reform of Education, appointed by the Consultative Assembly, drew up plans to remake French education more nearly on the American model of greater opportunity for secondary and higher education for all French youth. As planned, compulsory education would be raised from thirteen to fifteen years of age, with compulsory part-time attendance to eighteen years for those with a job. The number of technical and secondary schools was to be greatly increased, especially in the scientific, technical, and vocational fields. Also planned was a lessening of the power of the highly centralized system and more flexibility for local educational initiative. Thus, the social-reform movements of France that gained such great headway during the Second World War pointed to greater democracy, more secular control, and less centralized authoritarianism in French education. The success and stability of the Fourth Republic would, of course, determine in large part the success of these new movements.

Germany

Empire. Up to the First World War, German education remained strongly dualistic in structure and centralized in administration. The two-track system was maintained, and children at six years of age went to their respective schools, lower-class children to the *Volksschule* and upper-class children to the *Vorschule*, a preparation of 3 years before

entering one of the secondary schools at nine years of age. Education continued to be compulsory from six to fourteen, and separate schools were maintained for boys and girls wherever possible. The religious control of education continued to be vexatious. The Socialists and liberal groups opposed the sectarian public-school arrangements that had been devised, but they could not achieve complete separation of the churches from public education. Some gains were made, however. In addition to the sectarian public schools, some interdenominational schools were established in which the pupils went to separate religious teachers for instruction in their particular creed, and some secular schools were established in which there was no denominational religious instruction. The upper classes and conservative official groups repeatedly maintained that the schools should do all in their power to combat socialism. Industrial groups were active in extending scientific, technical, trade, and vocational education at all levels. The inculcation of national loyalties and the selective process to sort out the leaders from the followers remained the dominant aims and characteristics of German education.

Republic. After the First World War the Weimar Republic tried to reverse the aristocratic and centralized character of German schools. In the attempt to democratize the schools a unified, 4-year fundamental course for all children from ages six to nine was established, called the *Grundschule*. The idea of this arrangement was to provide a common educational background for all children and to postpone the separation into elementary and secondary schools until the age of ten. It was also designed to give more chance for the children of the lower classes to pass over into the several secondary schools by means of scholarships and free tuition.

The second 4 years of the elementary school, known as the *Oberstufe*, was strengthened as a means of preparation for the trade, technical, and continuation schools; and more attention was given to the *Mittelschule*, which led to minor business, clerical, and official positions. New types of secondary schools appeared, in addition to the three principal types earlier established. The new ones were the *Reform Realgymnasium* (still more modern than the *Realgymnasium*); the *Deutsche Oberschule* (stressing nationalistic and German aspects of culture); and the *Aufbauschule* (particularly in small towns and villages where no other type of secondary institution existed). Somewhat equivalent but separate secondary schools were established for girls.

In these ways the Weimar Republic attempted to make the opportunities more flexible for the masses of German children and to increase their opportunities for advancement. More authority for educational direction was given to the federal states of which the Republic was com-

posed in order that the systems could be adopted to local needs. The churches in the various states also maintained a strong position in the public schools. The Roman Catholic Church, for example, supported the Republic because Prussia and the empire had favored Protestantism, whereas under the Republic the church could support denominational public education even in the Protestant strongholds. As a result of the public denominational system there was little need for large numbers of private schools, and a very small proportion of German children went to private schools (some 3 or 4 per cent in the middle 1930's). There was some agitation for a unified school system (*Einheitschule*) along the lines of the proposed French *école unique*, but tradition was too strong and the life of the Republic was too short.

National Socialism. When the Nazis came to power in 1933, their first aim, of course, was to gain complete control of the educational system of Germany for their own purposes. This meant destroying the power of the federal states in education as well as in all other political matters and establishing a more completely centralized system of education than the empire had ever dreamed of. It meant, too, that the Nazis set about in all the ways they could think of to break the hold of the churches upon the schools. They could brook no opposition and no loyalties other than to the party. On the surface, the Nazis also attacked the two-class, aristocratic system of education and turned their attention to building up the elementary schools at the expense of the secondary schools, with a corresponding drop in enrollment in the secondary schools. But in reality the aim was to use the mass schools to instill the Nazi ideology of followership in all children and then to select a new aristocracy, or elite, based not upon economic class or intellectual achievement, but upon loyalty to the party.

Not only was the content of the school curriculum changed to suit Nazi purposes but all kinds of extraclass activities came to play an even larger part than the class instruction. These out-of-school activities attracted many youths, not only because of the privileges involved, but also because of their natural resistance to the highly formal, bookish, and overintellectualized character of most German schools. The Nazis perhaps went further in complete control of schools for political purposes than any other nation; they showed the world what a power education could be in achieving political and social ends, albeit for evil and destructive ends. When the United Nations occupation authorities began their work in Germany in 1945, they immediately turned their attention to ways and means of creating a truly free and democratic education in Germany, a task of enormous proportions because the Nazis had done their work so well and because there was relatively so little in the German tradition to build upon.

Russia

Czarist Russia. The Russian czars had done little for the education of the masses of the people, for the upper classes, including the Greek Orthodox Church, felt that too much education, even mere literacy, might be dangerous for the regime. In line with traditional patterns, therefore, Russian education was based upon the highly aristocratic models of earlier centuries and designed to give educational advantages almost exclusively to the middle and upper classes, virtually as in feudal days. The Revolution of 1905 helped to spur the czar's government to action, and in 10 years there were some seven or eight million students of all ages in all of the schools and universities of Russia, though some 60 per cent of the population were still illiterate. When the Communist revolution took place in 1917, the revolutionists were confronted with the most neglected and impoverished educational system of any of the major nations of the world.

Soviet Russia. When the Communists came to power, they set out to secularize, socialize, and centralize Russian education. They confiscated church school property, abolished private schools, and began to set up a universal and free educational system completely under state control. In the course of time a unified system appeared, consisting of nurseries and nursery schools for children under three years of age (many located in the factories), all-day kindergartens for children from three to eight years, primary schools of 4 years (ages eight to twelve), secondary schools of 3 years (ages twelve to fifteen), and upper secondary schools of 3 years (ages fifteen to seventeen). Above the secondary schools were the technical, scientific, agricultural, and university faculties; and parallel to the secondary schools were established special workers' faculties especially for the underprivileged city classes in the factories and for the peasants on the collective farms. In addition, there were a considerable number of institutions and extension classes for adult education in industrial, agricultural, commercial, and professional fields. Special attention was given at all levels to wiping out illiteracy and extending technical, cultural, and political education.

In the face of the need for propagating the Communist ideology the schools were completely converted to that task. The old aristocratic and selective methods were turned upside down as children of the privileged classes were denied opportunity to attend the higher schools and preference was given to the working classes. Coeducation became the rule in most schools, and no distinctions were made as to race or nationality. Despite the dominating centralized control, considerable freedom was allowed the autonomous republics in conducting schools in their own languages, though the central fact of Communist ideology was not,

of course, a matter of choice. Whatever special privileges accrued to any groups took the form of privileges to the new "aristocracy" of the party and the Red Army, training for which took place in special schools with rigorous methods.

As a result of all these changes the numbers attending schools in Russia jumped to some 15,000,000 in 1929; 35,000,000 in 1936; and 47,000,000 in 1939. This vast expansion of educational facilities in little more than 20 years was not matched by any other country. In the twentieth century the Russians had farther to go than any other major country, and they went fast. The Communists showed, as the Nazis had shown, how effective education could be when turned wholeheartedly to the building of ideas and loyalties appropriate to a guiding policy in the hands of a well-organized and closely knit party that knew where it wanted to go and had the power to shape all educational agencies in that direction.

Role of the Teaching Profession

England. The training of teachers in England generally followed the principles of the two-class system. Elementary school teachers went up through the elementary schools to the age of seventeen or so, were apprenticed to an experienced teacher for 2 to 5 years, and were then entitled to teach. Special teacher-training institutions, mostly under private and religious control, were gradually established for elementary school teachers. Secondary school teachers were recruited from secondary school graduates; some simply gained experience in teaching, and others went on to the universities for work in the academic subject-matter fields. Secondary school teachers were generally not expected to study "education." Knowing *what* to teach was enough; knowing *how* to teach was considered superfluous for a person well grounded in the subject matter.

This system established a rather high degree of inbreeding as between the elementary and secondary school systems. The National Board of Education controlled the public elementary teacher-training colleges up to the early 1920's and prescribed the courses of study. Since the early 1930's these prescriptions have been relaxed, and a good deal of local initiative has been allowed, the board simply stating that teachers should be efficient.

In recent years there has been a considerable amount of agitation for reform of the teacher-training system. It is likely that under the Education Act of 1944 the old dualistic system of teacher-training colleges versus the universities will be broken down and that greater opportunities will be provided for recruiting teachers for all kinds of schools from all classes in the population. Whatever changes take place, they are

likely to be in the direction of broadening the concept of teacher education so that elementary teachers may acquire a wider conception of the problems, methods, and philosophy of a new education. In any case, the provisions for teacher training will need to be expanded enormously and salaries raised if the more democratic aims of the new act are to be achieved.

France. Under the Third Republic the class distinctions in teacher training were even more rigid than in England. Elementary school teachers were trained in somewhat the following manner: After completing the primary school, the prospective teacher spent 2 years in a special preparatory course, then he went to the primary normal school, which offered a 3-year course; he was then ready to go back into the primary school as a teacher at about age eighteen. One of these primary normal schools was located in each *département* of France. Here was almost complete inbreeding of elementary school teachers.

On the other hand, secondary school teachers were graduates of a *collège* or *lycée*; at the age of eighteen they went on for 2 or 3 years to teacher-training institutions connected with the various university faculties and then went back to teach in the secondary schools after passing a number of difficult and strict state examinations in the subject-matter fields. They thus had a strong humanistic, scholarly, and classical training, which served to maintain the traditional and conservative character of French secondary schools. The most influential of these higher normal schools was the *Ecole Normale Supérieure* of the University of Paris.

Under the Vichy government the reactionaries naturally turned to the teacher-training institutions in the effort to wipe out liberal and radical movements among elementary teachers. A decree in 1941 abolished the special primary normal schools and ordered prospective teachers to follow the regular higher primary school courses. This was undoubtedly a blow at the liberal and secular doctrines that had been taught in these training schools. Anti-Semitic decrees also made it difficult for many Jewish teachers to continue their work in the schools and universities, though some quietly returned when collaborationist enthusiasm began to decline.

When the Vichy Ministry of Education became openly fascist, the teachers' organizations protested as vigorously as they could, and many teachers joined the underground resistance movements. Under the new plans of the Fourth Republic the struggle will doubtless reappear between those who wish to reaffirm the two-track system of teacher training and those who wish to broaden and extend the opportunity for preparation in the universities for both elementary and secondary school

teachers. Probably an exchange of students and educators between France and the United States will be stimulated.

Germany. Prior to the Republic, German teacher training reflected the familiar two-track system. Prospective elementary school teachers went to the 8-year elementary school, then to a 3-year special preparatory school, and then to a 3-year normal school in which the emphasis was upon routinized training in teaching the elementary school subjects. Inasmuch as the public elementary schools offered denominational religious instruction, the state normal schools were also denominational. Out of 201 state normal schools in Prussia in 1912, 126 were Protestant, 71 were Roman Catholic, and only 4 were nonsectarian in character. The candidates for elementary school teaching did not see a secondary school.

Similarly, prospective secondary school teachers went through the 9-year secondary school (most often the *Gymnasium*) and then to a university, where they studied their subject-matter fields for some 4 years until they could pass comprehensive examinations in a major and minor subject. They generally had little training in educational methods or preparation for teaching as such. Scholarship and intellectual ability were considered to be sufficient qualifications for secondary school teachers. After a year or two of probationary teaching and the passing of a professional examination in education, the candidates were ready to be licensed as regular teachers.

During the Republic, efforts were made to break down the dual system and build more bridges between the elementary and secondary schools; the separate elementary normal schools were abolished in most of the federal states. Prospective elementary teachers were expected to go to the common 4-year *Grundschule*, then to the 9-year secondary school, and finally for 2 or 3 years to a university faculty or institute or to a separate teachers college of university rank where the emphasis was upon psychology and teaching methods. It was thereby hoped that the level of training of elementary teachers would be thus raised to that of the training of secondary teachers.

With the advent of the Nazis the teacher-training institutions went the way of all Nazi education. Students were put into brown shirts, and the principal qualifications for teaching thenceforth became party loyalty and membership in the Storm Troops. The prospective teacher had to be completely correct, in accordance with the party line, in belief and behavior, and tenure depended entirely on maintaining such a status. All teachers who survived from the Republic were, of course, scrutinized carefully for their political beliefs and the "dangerous" ones weeded out. All teachers' organizations were replaced by the National Socialist Teachers' Association, designed to reeducate teachers in Nazi doctrines

or drive them from the schools. Newspaper readers in the United States in the late 1930's read of the book burnings at Salzburg and elsewhere conducted under the auspices of this organization.

As the United Nations occupation authorities looked forward to reconstructing education in Germany, the problem of finding appropriate democratically minded teachers was overwhelming. The chances were that a higher proportion of pre-Nazi teachers could be saved for post-war Germany from the elementary schools than from the secondary schools and universities. Coming as they did from the working and lower-middle classes, a higher proportion of elementary teachers was likely to have liberal, anti-Nazi, or Social Democratic outlooks upon which a democratic educational system could be built. The chances were, too, that Germany, as well as other war-torn European countries, would not look with favor upon the importation of large numbers of teachers from the United States or from other democratic nations to help reconstruct their schools.

Russia. When the Communists came to power in Russia, they had to use the main body of teachers already in the schools until they could train new teachers loyal to their revolutionary ideals. At the outset, therefore, they did not give too much power to teachers but aimed to capture directly the children and youth through party-controlled youth movements. Once the youth were won over, they in turn brought pressures and criticisms to bear upon those teachers who were reluctant to adopt the new ideology. Student control of discipline, administrative devices, and "reports" on the teachers were powerful weapons to bring the teachers into line.

Once teacher-training institutes were reorganized or created, a new generation of teachers appeared to begin manning the schools. By 1930 or so, enough new teachers were ready and enough of the old teachers had been converted so that they could be given more power and authority in the schools. Elaborate decrees in the 1940's instructed children to obey without question the orders of teachers. Youth organizations were obliged to help teachers maintain order and discipline and to carry out their instructions and were no longer permitted to interfere with or criticize the work of the teachers. Political correctness was the supreme qualification for the Soviet teacher.

Nonschool Agencies of Education

In the twentieth century it became more than ever clear that agencies of education outside of the organized schools for children and youth could exert enormous influence. The radio, motion pictures, newspapers, periodicals, books, and rapid means of communication made easier the promotion of public discussion and the molding of public opinion. In

England, for example, adult education took enormous strides through such agencies as trade unions, political parties, church organizations, co-operatives, university extension courses, and, above all, the Workers' Educational Association, which had branches all over the country, furnished speakers and discussion-group leaders, and distributed large amounts of literature and films on public issues of all kinds. During the Second World War the Army Bureau of Current Affairs conducted an effective program for discussion of important problems among English soldiers and officers, and the civil-defense programs functioned similarly for the home front. The Youth Service also stimulated programs of health, recreation, and leisure-time activities in clubs and youth centers. The Western democracies, however, lagged far behind Germany, Italy, and Russia in organizing out-of-school youth movements on a large scale.

In pre-Nazi Germany about the beginning of the twentieth century a youth movement under the leadership of Karl Fischer found great popularity among German boys and girls of about ages fifteen to eighteen. It was a reaction against the increasing industrial, urban, and materialistic civilization of the times and represented the revival of a romantic spirit of freedom and rebellion against the restraints of intellectualized education. Trips into the country developed a back-to-nature feeling and an interest in the folklore and life of the rural and village regions. The First World War changed the romantic spirit to an aggressive and disillusioned one; these youth proved to be fine tools for the Nazis, who quickly saw the value of organization as a means of capturing the loyalties of the younger generation and used them as a leverage against the anti-Nazi sentiments or indifference of older groups.

An organization known generically as the Hitler Youth was built up to embrace all children from ages ten to eighteen. A preparatory organization was for children from ten to fourteen years of age; in this "character" development and physical training were emphasized. For youth from fourteen to eighteen the organization, known specifically as the Hitler Youth, was designed to provide all kinds of activities that would interest the members and make good Nazis of them. Outings, hikes, camping, strenuous physical sports of all kinds, and evenings of singing, storytelling, marching, and radio entertainment made up the bulk of their out-of-school activities. At first the so-called "terrain sports" were claimed not to be military training, but by 1939 it was openly declared that pistol and rifle practice in attacking and defending imaginary battlegrounds was to be emphasized. Starting on a voluntary basis the Hitler Youth was made compulsory in 1939 for all boys and girls from ten to eighteen.

Baldur von Schirach, Reich youth leader, held the post of a state

secretary; his favorite phrase was "German youth belongs to the Fuehrer." Constant stress was put upon duty, obedience, German honor, character, spirit, courage, discipline, and leadership, all leading up to the desire to die for the fatherland and the Fuehrer. Special groups for training to become the elite in the Nazi party were organized and given a most rigorous and diabolical preparation for leadership. More than 7,000,000 youth belonged at one time to the Hitler Youth, by far the majority of German youth. The democracies did not realize how seriously German youth were taking such "confessions of faith" as that delivered by Robert Ley, chief of the Labor Front, to 15,000 youth in Berlin in 1937.

We believe on this earth solely in Adolf Hitler. We believe that National Socialism is the sole faith and salvation of our people. We believe there is a God in Heaven who has created us, led us, and publicly laid his blessing upon us. We believe that God has sent us Adolf Hitler so that Germany may receive a foundation for its existence through all eternity. Adolf Hitler, victory hail!

In addition to the military and ideological training of the Hitler Youth movement, which overshadowed the formal training in the schools, the Nazis reinforced the ideals of work and love for the soil, as well as promoting health and physical strength, by sending boys and girls of fourteen to fifteen years for a year of organized and directed work on the farms, a period known as the "land year." During the day they worked in the fields and had physical training; in the evenings they received nationalistic and political training in Nazi ideology. Likewise, the Labor Service was required for a half year for all boys at eighteen, prior to their 2 years of compulsory military service.

Thus, the party erected a complete structure of out-of-school education for all youth designed to feed a strong and disciplined following into the Storm Troops, Elite Guard, and the party itself. Complete control of radio, newspapers, books, art, dramatic entertainment, and all the means of communication and propaganda gave the party enormous power. It was extremely clever in its appeal to the interests of youth by playing up the heroic ideals of self-sacrifice, obedience, and service to a cause. In these ways they produced the powerful and fanatical loyalties that the democracies so often underestimated.

The Italian Fascist and Soviet Russian techniques in developing youth organizations were somewhat similar to those of Germany. In Russia the Octobrists (ages eight to twelve), the Pioneers (ages ten to sixteen), and the Young Communists (ages fourteen to twenty-three) served analogous purposes to promote the Communist ideology and provide a pathway for entrance into the Communist party. The Soviet Union was extremely adept at developing cultural, dramatic, and art programs for

adult and youth groups that not only solidified political awareness but also raised the level of intelligence and appreciation among the people generally.

EDUCATIONAL AIMS, CURRICULUM, AND METHODS

Elementary Education

England. One of the principal characteristics of English elementary schools has been the variety in curriculum as well as in form and support. Local initiative and autonomy in curriculum building continued to be marked in the twentieth century. The English also tended to believe that the family and home were the fundamental institutions and that the school was a supplementary institution to give training that the home did not give. Even the education laws customarily laid the injunction upon parents to see that their children were educated, rather than laying the stress upon attending a school. This meant that character and moral training received a high place, whereas mastery of subject matter was relatively subordinate. Furthermore, subject matter itself was conceived rather narrowly, as revealed in the Education Act of 1921, which simply said that parents must cause their children from ages five to fourteen to receive elementary instruction in reading, writing, and arithmetic.

These were the only subjects found in virtually all elementary schools. Beyond that, each school could branch out as it saw fit to give instruction in such subjects as geography, history, nature study, drawing, music, physical training and hygiene, and manual and household arts. The amount of time given to these subjects varied; no textbooks were prescribed nationally, and no requirements were laid down concerning what they should contain. Religious instruction continued to play a large role in most elementary schools. The general practice was to give special-place examinations to determine which children at the age of eleven years should go to secondary schools and which should continue in the higher forms of the elementary school to receive additional training in the elementary branches of knowledge. The broadening of the scope and conception of elementary education, however, was emphasized in the Education Act of 1944, which provided that education should be suited to the moral, mental, and physical needs of children and the community.

France. In French elementary schools the nationalistic element always was a direct and powerful part of teaching methods and curriculum. Along with nationalism the ideals of thoroughgoing mastery of subject matter played a large role; therefore, much emphasis was put upon the acquisition of fundamental skills, facts, and organized knowledge. The

kind and content of textbooks were rigidly prescribed by the national Ministry of Education, and state examinations, both oral and written, were given to all children at the age of eleven and again at the end of the higher primary school. In addition to instruction in morals and civics, the curriculum usually included the three R's, French history and geography, nature study, drawing, singing, manual and household arts, and physical and military training. The most common methods of teaching involved direct exposition by the teacher, questions and answers, copying dictation into an exercise book, and memorizing and reciting the material copied.

During the occupation by the Nazis great efforts were made to introduce texts friendly to Germany and weed out those which referred to German war guilt or atrocities in the First World War or which otherwise were anti-German. Under the provisional government of the Fourth Republic, plans were made to modernize elementary instruction along more progressive American lines. An experimental program for some 5,000 pupils in 200 classes of eleven-year-olds was introduced in the autumn of 1945 to emphasize an individualized and activity program, which, if approved, was to be extended more widely in elementary schools.

Germany. Under the Republic many elementary teachers in Germany became enthusiastic over "progressive" methods of teaching that emphasized individual freedom from restraint and integrated subject matter as a reaction against the excessively controlled, authoritarian, and intellectualized subject matter of the imperial schools. Much stress was put upon the study of the local environment, trips, plays, music, and art as mediums of free expression. Printed courses of study were replaced by "suggestions," and much attention was given to child psychology, the interests of pupils, and pleasanter relations between teachers and pupils to replace the formal discipline of bowing and heel clicking characteristic of the Prussian military tradition. Such freedom and individualism were, of course, resented by many Germans, and the excesses of such activity methods made inevitable an even more reactionary swing of the pendulum under the Nazis back to strict control, obedience, discipline, and authority of the teacher.

The content of the curriculum under the Nazis was entirely shaped around the nation's past, present, and future as visualized by the Nazis. Much attention was given to history, and almost exclusively to the German aspects of history, glorifying ancient and mythical heroes and military achievements. The titles of new textbooks are illuminating, for example, *In the Mists of Antiquity*, *Nordic Heroes*, *German Battles*, and *German Greatness in Sacrifice and Leadership*. Glorification of the

nation's present was reflected in a decreasing emphasis upon foreign languages. There was much emphasis upon German language, literature, culture, art, and music, "German" of course to be interpreted as "Aryan" and non-Jewish, which meant that the vast contributions of Jews to all these fields had to be eliminated. Geography was used to glorify Germany and to give children a further loyalty to all parts of the nation.

The nation's future was bound up in the study of biology, eugenics, and the "science of race purity." The interest here was in health, "correct" marriages among Aryans, and bearing and rearing children for the state. Economic and political study of the future role of Germany stressed the necessity of winning back the lost colonies, uniting those of German blood from all over the world into one great fatherland, and making Germany self-sufficient until such time as it could dominate the economic and political arrangements of the world. The restoration of anything like objective knowledge or democratic teaching in German schools by the United Nations meant an enormous task of editing and writing new textbooks that would be democratic in outlook and yet as attractive, interesting, and vivid as the Nazi myths had been.

Russia. In their first attempts to reform the elementary schools in Russia the Communists adopted what they believed to be progressive methods, in which activities, project methods, student freedom, and political ideology were used to instill the new political ideals in the younger generation and "convert" the teachers. Individual grades and competition were abolished as a holdover from capitalistic ideology, and ability to perform in group cooperative work was extolled as the ideal. However, after the first Five Year Plan the Communists felt secure enough to return to the more traditional methods of giving organized and logical information to the people as a means of building a highly industrialized nation in a short time. An excellent description of the new attitude of Russian education is given by Professor George S. Counts.

The resources of the educational system were gradually directed to the "mastery of knowledge." Whereas in 1929 Soviet teachers commonly stated that their main task was to help achieve the goals of the first Five-Year Plan, by 1938 they agreed that their major responsibility was to assist the young in such a sober matter as mastering the Russian language, mathematics, science, technology, geography and history. The teaching of subjects was revived, "stable" or generally prescribed textbooks were carefully prepared, closely organized sequences of learning were established in every field, rigorous examinations and school marks were introduced, and in general a systematic curriculum resembling in its rigidity, severity and universality that of France was developed.¹

¹ GEORGE S. COUNTS, "Remaking the Russian Mind," *Asia and the Americas*, pp. 482-483, October, 1945.

Political education in the lower grades was abolished, and the complete authority and discipline of the teacher were reestablished. The pupils' own responsibility for conscientious work, good grades, passing examinations, diligent study, strict obedience to the teacher, and personal appearance, manners, and conduct was stressed. National aims to build a Communist state and an industrial society took new forms in educational method and content, but these aims continued to pervade all that the schools did. Elementary education was definitely a political branch of the state, and in Russia the state still meant the Communist party.

Secondary Education

England. Although there was a steady growth of publicly supported secondary schools in England, the pace and tone of secondary education continued to be set by such great, privately supported "public schools" as Eton, Harrow, and Rugby. Their classical, religious, and aristocratic patterns were largely imitated as far as possible by the endowed day schools and other private boarding schools. In the social estimation of England the public schools held high place as agencies for training leaders in government, business, and church, while at the same time they were increasingly criticized for their exclusive and selective character. Their hold was strong on the preferred civil, political, and managerial positions in England.

Despite the larger number of "free places" and scholarships that were being granted in the secondary schools, class distinctions and the economic level of parents played the largest roles in the selection of clientele. Pupils from the elementary schools were constantly outclassed in the examinations for scholarships because of the largely classical character of the examinations. Character training and "gentlemanliness" played a larger role in the public schools than severe intellectual training. The Second World War brought new criticisms upon the public schools, and proposals were even made that they be taken over by the government. Their future role remained uncertain as genuinely public secondary education expanded under the Education Act of 1944, but they will doubtless continue to play a large role, in influence if not in numbers, so long as much local autonomy and control over curriculum are left in the hands of headmasters and private school managers. The chances were, however, that they would never again play the exclusive and dominating role in a dualistic school system that was their privilege for so many generations.

France. In France, of all the countries of Europe, secondary schools held most rigidly to classical studies and resisted more fully the inclusion of modern scientific, historical, and technical subjects. France had

become convinced that an aristocratic and selective secondary school was the best means of preparing leaders for a democratic society. The Humanists claimed that they knew what the fundamental ingredients of general culture were and that a classical curriculum was the principal educational means by which cultured persons were produced. In 1902 Louis Liard was instrumental in introducing into the secondary schools a parallel course, which emphasized modern languages and science, alongside the classical course, which emphasized Greek and Latin. Both courses were to include a certain amount of history, geography, mathematics, and science, but the newer course was never fully recognized as equal in standards to the older classical subjects.

In reaction against the intrusion of the modern subjects and after hot debates in the parliament of France, Léon Bérard decreed in 1923 that 4 years of Latin and 2 years of Greek were compulsory for all students in *lycées* and *collèges*. After 2 years, however, the choice between modern languages and Latin was restored, and in the highest grade of the *lycée* a choice was given between philosophy and mathematics. State examinations were held at the end of the sixth year and again at the end of the seventh year of the secondary school, when the baccalaureate degree was awarded and admission to the university or technical faculties achieved.

To the horror of the Humanists, the Vichy government announced its intention to "deintellectualize" French secondary education along the lines of the German youth movement. Following the philosophy of "kitchen, church, and children," the proposal was to introduce manual training, domestic science, physical training, and other practical and vocational courses into the staid halls of the *lycée*. Fully as revolutionary was the proposal to abolish the philosophy course as the last year of the *lycée*. These proposals, of course, met determined resistance and were never fully carried out. Likely to be more thoroughgoing were the proposed reforms of the Fourth Republic, looking toward a great expansion of the technical as well as the academic secondary schools. The question remained as to how fully the technical and scientific subjects would be admitted into the academic secondary schools.

The typical European solution to this problem has been to preserve the integrity of traditional secondary schools while establishing newer schools to meet the demands for technical and vocational education. If these two types of schools were made more equivalent in standards, prestige, and opportunity for all classes of youth, they would be serving more democratic ends than if they represented a superior and inferior position with respect to clientele, status, and preparation for advanced professional and occupational work. Recent trends in both France and

England seem to point to a development similar to the development of the ladder system and modern high school in the United States.

Germany. The multiplication of secondary schools went much further in Germany than it did in France or England, especially under the impetus of the democratic educational reforms of the Weimar Republic. Whereas France really had only two versions of the same type of secondary school (*lycée* and *collège*) as roads to the universities, Germany provided at least six types of schools that led to higher education in technical or academic subjects. Until the Nazi regime, however, the *Gymnasium* continued to be the preferred route, much like the *lycée* in France and the public school in England. The Nazis set out to reduce the hold of the traditional secondary schools upon university preparation. They took away the sixth day of each week from classes and gave the time to the Hitler Youth activities, they reduced the importance of the classics, and they restricted the attendance of Jewish students. As a result, the program of the German *Gymnasium* was cut by 2 or 3 years in the time devoted to class instruction, and the attendance declined by 25 to 30 per cent. The German secondary school system was greatly reduced in intellectual and scholarly standing in comparison with the school systems of most other nations of the Western world. Whether this standing could be recovered along democratic lines in a reconstructed Germany remained to be seen.

Russia. The Soviet government revitalized its secondary school curriculum in a way that reflected a new approach to intellectual and cultural matters. No longer was everything completely subordinated to the materialistic Marxist doctrines of political and economic theory, strong as they still were. New emphasis was recently given to history, literature, the humanities, and the arts as well as to science and technology. No schools became more history-minded than the Russian schools, where 3 or 4 years of Russian history are taught, along with world and American history. Great interest in the United States, England, and Canada was aroused among Russian students as a result of the cooperation in the Second World War, and despite the opposing economic outlooks there was evidence of great eagerness to know about American and English life. The study of English grammar and literature also became of widespread interest.

In all these ways the old isolationism surrounding the building of socialism in one nation gave way to a larger international concern. Even Russian literature and art began to be studied for their literary and artistic qualities, for their portrayal of human emotions and individual interpretations rather than simply as mere tools for achieving a classless society. Without a decrease in the fundamental political character of education in Soviet Russia, the schools came to be characterized more

recently by a new spirit that elevated the intellectual and cultural ideals that formerly had little place in a revolutionary struggle between classes. Whether the two could be permanently reconciled in Soviet Russia remained to be seen. Much depended upon the relations of Russia with its war allies in world cooperation for peace and intellectual understanding.

Higher Education

England. Higher education in England has long been dominated by the two universities, Oxford and Cambridge. Traditionally, their emphasis has been not so much upon research as upon instruction that would lead to the type of social, moral, and political character appropriate to the ruling classes of England. Despite the constantly growing number of scholarships and free places the principal opportunity for attendance has doubtless belonged to the more privileged families. The close relationship between an Oxford or Cambridge degree and a high government position has long been apparent.

Over the years, opportunities for higher education somewhat in the manner of American state universities have been steadily expanding. Notable among such institutions are the University of London and such provincial universities as Birmingham, Bristol, Leeds, Liverpool, Manchester, and Sheffield. The University of London consists of a large and loosely coordinated number of semiautonomous institutions, including two undergraduate colleges (King's College and University College), several schools of special interest, such as the London School of Economics and the Imperial College of Science and Technology, and several research institutes, hospitals, teacher-training schools, and the like. It may be that under a Labor government state interest in education will extend to the universities and achieve a larger measure of prestige and importance for public higher education.

France. Several kinds of state institutions made up the opportunities for higher education in France. Before the Second World War there were 17 universities, one in each of the *academies* (national administrative divisions for education). The universities had two principal aspects: the *faculties*, which normally include letters (at Paris, the Sorbonne), science, law, medicine, and pharmacy for general instruction and research; and the *institutes* for specialized research or study within a faculty or for the study of particular fields that cut across the traditional subject-matter fields, such, for example, as industrial chemistry, radium, optics, psychology, statistics, ethnology, linguistics, art and archeology, physical education, and the like. There were several kinds of *higher schools* for specialized instruction in fields outside of the regular university faculties and institutes. Some were technical and scientific, such as the schools of polytechnics, military and naval science, aeronautics,

mines, forestry and agriculture, and engineering and industry; others, administered by the Ministry of Education, include the superior normal schools for secondary and elementary school teaching, schools of arts, crafts, and music, and technical schools.

The faculties, institutes, and higher schools regularly required some sort of secondary school diploma or baccalaureate degree for entrance, in addition to qualifying examinations. They also granted various licenses after 2 or 3 years of study, the doctorates, which usually entailed another 2 or 3 years of study, and the *agrégation*, which was issued on the basis of competitive examinations to select instructors for the secondary schools and professors for the higher faculties.

In addition to the degree-granting institutions, there were several publicly supported institutions for advanced study whose courses of lectures and facilities were public and free and did not lead to examinations or degrees. Notable among these were the *Collège de France*, the National Museum of Natural History, and the National Academy of Arts and Crafts. Finally, there were the private and religious institutions of higher education, which offered a wide range of study in many fields but which in general were overshadowed by the public institutions in respect to recognition and support.

Despite this diversity of higher educational institutions the opportunity for gaining degrees and passing state examinations has generally been limited to the relatively exclusive clientele coming up from the secondary schools. If the Fourth Republic follows through its early intention to widen the scope of secondary education and make it more fully available to a larger cross section of the population, it may be that university reform will follow in the same direction.

Germany. Up to the 1930's most educators in the United States looked upon the German universities as furnishing the highest levels of teaching and research and therefore as the best universities in the world. The renown of Berlin, Munich, Heidelberg, Göttingen, Halle, Jena, Freiburg, Hamburg, Bonn, Cologne, Frankfurt, Breslau, and Königsberg along with a dozen others was very impressive. The freedom of learning and teaching for professors and students, the autonomy of the faculties of philosophy (arts and sciences), medicine, law, and theology, the quality of research, and the objectivity of science and knowledge were highly regarded. In addition, there were a number of scientific and technical institutions outside of the universities that were often considered as of equal standing for advanced research and teaching.

When the Nazis came to power, they instituted a program to turn the universities to their own uses, to make party loyalty the principal requirement for students and professors, and to wipe out the "decadent" liberal notions that science and knowledge should be objective. Knowl-

edge and science could no longer be nonnational or international in outlook but had to be subordinated to Nazi ideology. In 1936 Bernhard Rust, minister of education, proclaimed:

Science is not a free and independent construction, fitting into neither space nor time, but is a specific accomplishment of the national spirit. For the first time the political duty of the young scientist and his scientific duty have been unified. The Fuehrer summons them. They shall lay hand to the undertaking that has been presented to German science.

Professors who did not suit the Nazi ideas of race, religion, or politics were vigorously attacked, and many who could not adjust their positions were weeded out or "liquidated." New courses that sounded strange to many academic ears were announced on such subjects as folk and race, Nazi philosophy and race theory, foundations of National Socialist philosophy, and the nature of ancient German religions. Student enrollment between 1932 and 1935 dropped virtually 50 per cent. In 1936 the Nazis conducted a celebration to mark the five hundred and fiftieth anniversary of the founding of Heidelberg, and all major universities in the world were invited to send representatives. Many accepted and sent delegates, others accepted with reservations, and others refused, led by Birmingham, Cambridge, and Oxford. In 1937 the two hundredth anniversary of Göttingen was celebrated with the full panoply of Nazi uniforms, marching, cheering, speeches, and spectacular show. Delegates came from 30 foreign universities, and the *New York Times* correspondent closed his report of the scene with the words, "Most of the foreign delegates stood rigidly at attention giving the Hitler salute along with their German colleagues."

It was clear that many educators were confused by the spectacle of Nazi control of German universities. Some laid full blame upon the Nazis for destroying the ideals of free and objective research and teaching. Others, blaming the Nazis fully as much, also held the German universities themselves to be not entirely blameless. They recalled the traditional aristocratic and undemocratic character of the German universities, which had led them to retire to their ivory towers in unconcern for the political and social trends of their times. Today, no one can miss the tragic point: universities cannot reject their social responsibility in a crisis and cannot flourish in their traditional liberalism without lending active leadership in achieving and maintaining a thoroughgoing democratic society.

Russia. During the nineteenth century the nobility spurned the Russian universities, and the peasant and working classes were shut out; therefore, the largest element in the student body usually represented the liberal, constitution-minded middle classes. The students were thus

often considered to be dangerous revolutionaries by the aristocratic ruling classes, and they justified the aristocracy's fears by constant agitation for liberal reforms and by supporting the Revolution of 1905. During the First World War, plans were made to restore some of the autonomy earlier gained by the universities and to emphasize research and higher investigation rather than specific preparation for public service. The universities, representing middle-class outlooks as they did, opposed the revolution of October, 1917, and therefore received the full force of Communist attacks.

When the Soviet regime came to power, the first steps were to abolish entrance requirements, state examinations, and degrees and open the universities to all persons, both men and women, sixteen years of age and over. Since the young peasants and workers had no educational background fitting them for university study, new institutions known as *Rabfacs*, or workers' faculties, were established to give a concentrated 3 years of study to prepare the lower-class students for entrance. By 1932 a half million students were enrolled in the *Rabfacs* and despite great opposition rapidly invaded the halls of the universities.

In 1922 a thoroughgoing reorganization of higher education was announced; the universities were made a part of the state system of education, and numerous other higher schools were established, both intended to prepare specialists and scientific workers in the various vocations and to spread knowledge among the masses. Entrance examinations were restored, and this time preference was given to students of proletarian origin and background, who received maintenance at state expense.

Now that the higher schools had become a political arm of the Communist party, the curriculum of the higher schools and universities played up social and political studies in order to spread the Marxist gospel. Physical education and military training were also made compulsory. As was the case in the lower schools in the 1920's, students and youth organizations were given much responsibility in running the institutions as a means of breaking the hold of faculties who were not in sympathy with the Soviet ideology. Student groups, newspapers, meetings, excursions, entertainment, and discussions played a large role in the activities of the institutions. Competition for grades was abolished in favor of the principle of equal rewards and group responsibility. Students set out to reduce illiteracy among the adult population, work on the farms and factories during vacations and in emergencies, and help in establishing collective farms and conducting elections.

After 1929 the character of Soviet higher institutions changed once more, much as lower schools had changed with the beginning of the first Five Year Plan. The stress was now upon the mastery of knowledge

as a means of preparing professional and specialized scientific personnel. Neutral or antagonistic professors were liquidated, and a great campaign was conducted to fill the student body with proletarian Communists. The doctrine that science must serve socialism became the over-all aim, much as the Nazis stated that science must serve National Socialism. Higher institutions were set up in connection with many factories; thus, centers of production also became centers of education.

As the second Five Year Plan got under way in 1933, methods of instruction became more standardized; individual grades, examinations, and degrees were restored, along with an emphasis upon greater discipline for students and greater authority for the professors. More general education in the social studies and sciences was offered, in addition to the professional and practical training for productive work, physical education, and military training. The 12 universities were designed primarily to train advanced workers in the natural and physical sciences. New institutions known as "universities of culture" sprang up to reassert the values of study in history, literature, music, and fine arts in order to broaden the cultural background of the populace. Once the great impetus for technological achievement had been well set in motion by the first Five Year Plan, the Soviet authorities felt that education could be broadened beyond the specialist stage. Students flocked to the higher institutions, and by the early 1930's Russia rivaled the United States in the opportunities for higher education among the youth of the nation.

World Cooperation in Education

As the Second World War drew to a close, voices were raised in many countries urging that the cooperation of the United Nations in war should be extended to education in the peace. More and more people began to realize how much the war had been promoted by educational systems that devoted themselves entirely to the nationalistic aims of aggressor nations. In 1944, preparatory commissions met in London and elsewhere to draw up plans for an international agency of education. In November, 1945, delegates from 44 of the United Nations met in London and approved the charter for the United Nations Educational, Scientific, and Cultural Organization (UNESCO). Soviet Russia refused to participate in the proceedings on the grounds that the establishment of such an organization should wait until authorized by the United Nations Organization when it met for the first time early in 1946. Plans were made to hold the first meeting of UNESCO on November 5, 1946, at its headquarters in Paris.

The principal objectives of UNESCO were to promote international peace, to improve international cooperation and understanding through

the educational systems of the various nations, to reduce illiteracy, to aim at equality of educational opportunity for all the people in the various nations, and to combat doctrines of racial superiority and inferiority and national misunderstandings on the ground that wars start in the minds of men. Only if men and women everywhere are educated to want world peace can peace be achieved. The principal methods to achieve these ends were to be extensive interchange of scholars, students, and educational materials, help for the ruined educational facilities of the devastated countries, cooperative methods to extend scientific and cultural research, and annual reports on the progress made in each country. It was clearly recognized that unless the various mediums of mass communication (press, radio, movies, and the like) fully supported the objectives of UNESCO, the efforts of schools alone would achieve relatively little.

Although some persons desired greater authority for UNESCO to control or supervise educational systems that might become a danger to the peace, the charter specifically safeguarded the integrity and independence of each nation's schools against interference by the international agency. The success of UNESCO clearly depended upon the genuine will and desire of the member nations to promote world peace. If such a will remained strong, UNESCO could doubtless promote international cooperation. If it succeeded in promoting and strengthening the desire for peace among the peoples of the world, it would become one of the most important agencies ever devised, until such time as the nations of the world are ready to surrender a larger measure of sovereignty to a genuine world government. As the atomic bomb and the touch-and-go relations of Russia and the United States became the number one political problem of the post-war period, more and more people began to feel that immediate steps should be taken in this direction.

Another indication of the growing sense of need for world cooperation in education was the establishment of the World Organization of the Teaching Profession at a meeting of delegates from 30 nations at Endicott, N. Y., in August, 1946. The principal purpose is to secure greater unity among the professional teachers' organizations of the world in order to extend full and free education to all without discrimination, to improve the status of teachers, to advise agencies of the United Nations, and to promote the physical, social, and intellectual conditions of cooperation upon which world peace and security must rest.

CHAPTER XXI

AMERICA IN THE TWENTIETH CENTURY

THE INSTITUTIONS MEN LIVED BY

Events moved with ever-increasing speed on the broad front of institutions and ideas in the first half of the twentieth century in the United States. Despite the appearance of "normalcy" in some years, changes were occurring in American life that were to affect fundamentally the character and program of education.

Domestic Political Trends

The most impressive features of American political development were gains made, despite opposition from conservative and entrenched forces, in the direction of political reform and social legislation designed to promote the general welfare of the people. Although the gains may have seemed inadequate to some extremists, the character of political life in the 1940's showed enormous changes from that of 1900. What had been shouted down as radical or nonsensical in 1900 had become accepted principles of governmental responsibility by the 1940's.

The Republican party under the presidential leadership of William McKinley, Theodore Roosevelt, and William Howard Taft dominated the first decade of the twentieth century; the Democratic party under Woodrow Wilson dominated the second decade; the Republicans returned to power in the 1920's under Warren G. Harding, Calvin Coolidge, and Herbert Hoover; and the Democrats swept back into control in 1932 under Franklin D. Roosevelt and maintained their hold into the fifth decade under Roosevelt and Harry S. Truman. The trend toward more widespread social legislation was unmistakable, taking place more slowly perhaps under the Republicans and more rapidly under the Democrats. Protest votes recorded by various minor political parties reached their peak during Republican control and declined somewhat as the New Deal seemed to respond to the public desire for greater government participation in achieving a measure of economic and social welfare.

As business and industry grew in power and size, so did the power and regulatory controls of government. The trend toward greater authority for the federal government was the central political fact of the twentieth

century. Controversies were waged hotly as to whether or not this was a desirable trend. Some, impressed by totalitarian trends in Europe, declared that increased governmental authority was the inevitable "road to serfdom"; others believed that American ingenuity in social invention could make government, even big and powerful government, still more democratic than it was.

Reform movements. When McKinley was reelected president in 1900 with Theodore Roosevelt as vice-president, the Republicans had stood on their record of sound business achievement during the prior few years and defeated Bryan and the Democratic ticket more severely than in 1896. When Roosevelt became president upon the assassination of McKinley in 1901, he aroused some enthusiasm among reformers for his "Square Deal" attacks upon trusts, his efforts to conserve the resources of the country under federal control, and his upholding of the rights of labor in the anthracite coal strike of 1902. After Taft had won the election of 1908 with the help of Roosevelt against the Populistic doctrines of Bryan for the Democrats, Taft also attacked the trusts and supported the income-tax amendment to the Constitution. Despite such policies as these, however, the high tariff of 1909 and other measures led certain Progressives under the leadership of the elder Senator Robert M. La Follette of Wisconsin to organize a revolt from the Republican party in the election of 1912.

In that year the Republicans renominated Taft, the Progressives nominated Roosevelt, and the Democrats put forward Woodrow Wilson, who received the support of Bryan by endorsing the principal items in the Populist program of reform. With the split among the Republicans, Wilson was elected; but the large vote for Roosevelt and votes of nearly a million for Eugene V. Debs on the Socialist ticket revealed a growing dissatisfaction with both major parties. Wilson immediately set out to expand social legislation in line with his doctrines of the "New Freedom." Further efforts were made to break up large trusts charged with restraint of trade, and the Federal Trade Commission was established in 1914, a recognition that the government should not allow unlimited competition and should regulate business and industry in the interests of the public welfare. The Federal Reserve System of banks was established to give the government more control over currency and credit, tariffs were reduced, and the Farm Loan Act of 1916 created federal land banks to make loans to farmers at lower rates of interest than private banks would do. An eight-hour act passed by Congress gave labor some consideration by reducing the hours of work to 8 for railroad workers in interstate commerce; and the Clayton Antitrust Act of 1914 gave greater scope to organized labor by preventing employers from using wholesale injunctions through federal courts to break strikes and by freeing labor unions from

prosecution as organizations in restraint of trade. Wilson was reelected in 1916, but his domestic policies felt the repercussions of the First World War.

Meanwhile, the ferment of social reform during the first two decades of the twentieth century was being reflected on a broad front of social legislation in the various states. Many state legislatures passed laws reducing the hours of labor for men as well as for women and children; regulated the conditions relating to safety and sanitary measures in factories, mines, and industry; fixed responsibility upon employers for accidents to employees; established compulsory accident-insurance schemes, insurance against illness, and public-health measures for the prevention and control of disease; passed housing laws to eliminate the worst conditions of crowding and tenement districts in the large cities; regulated rates, services, and franchises of public utilities; passed laws to conserve natural resources of the country in forests, water, minerals, and land; extended income and inheritance taxes in order to levy taxes in proportion to the ability to pay; and passed laws providing old-age pensions and benefits for widows and dependent children. In all these ways the conception was growing that democratic government had the right and obligation to prevent business practices that endangered the health and security of the people and to promote the general welfare by public regulation and control.

In addition to the expansion of the role of government, great gains were made in improving the political processes of democracy, by which control was put more directly into the hands of the people. This took the form of attack upon rule by party bosses and political caucuses. The practice of electing United States senators by the legislatures was the target of increasing criticism from popular groups. The first gain came when state legislatures were required to elect the candidates chosen by the people. Finally the Seventeenth Amendment to the Constitution was approved in 1913, providing for the direct election of senators by the people of the several states. Another reform was directed at the practice by which party candidates were chosen by party bosses or political conventions. By 1910 many states of the South and West required direct primary elections as the means by which candidates were chosen by the people of the respective parties.

The methods of balloting were reformed, and precautions were taken to ensure secrecy by the use of the Australian ballot and later by voting machines in some large cities. The reform movement for voting rights for women met success in state after state, until finally the approval of the Nineteenth Amendment in 1920 gave equal suffrage to women throughout the country. These reforms did not, of course, entirely prevent party abuses; for political bosses in the large cities learned new ways to "get

out the votes," and the primaries of the Democratic party in the South (tantamount to election) excluded Negroes by various means. Despite many such imperfections, however, the elections of the 1940's were generally much more honest and representative of the genuine will of the people than elections had been in the nineteenth century.

Republican normalcy. On a wave of dissatisfaction and unrest following the First World War the Democrats were swept out of national office, and the Republican candidates, Warren G. Harding and Calvin Coolidge, were elected against James Cox and Franklin D. Roosevelt. From 1920 to 1932, the Republicans remained in power and argued that "normalcy" had returned under their leadership and that the greatest prosperity known to man was of their making. In general, big business and industry felt much freer to conduct their affairs without government control and regulation. Coolidge became president when Harding died in 1923 and was nominated in 1924, along with Charles G. Dawes. But the spirit of reform was not dead, for another Progressive Republican revolt took place, and the elder Senator La Follette ran on a Progressive ticket against Coolidge for the Republicans and John W. Davis for the Democrats. The Progressives polled nearly 5,000,000 votes, but Coolidge won a majority of the total votes cast. In 1928 Hoover was elected against Alfred E. Smith of New York, whose advocacy of repeal of the prohibition amendment (passed in 1919) and Roman Catholic faith were to his disadvantage.

The general feeling of prosperity during the 1920's militated against continued proposals for social legislation, but some gains were made, sometimes with the support of and sometimes against the will or indifference of Coolidge and Hoover. Coolidge favored an amendment abolishing child labor, but he opposed extension of the income and inheritance taxes. Boulder Dam put the government into large-scale business (water and electrical power), but both Coolidge and Hoover vetoed the plans for government ownership of Muscle Shoals as sponsored by Senator George W. Norris of Nebraska. Timid beginnings were made to relieve the growing surplus of farm goods and the declining income of farmers by passing laws to protect farmers against fraud in the transportation of livestock, grain, and perishable farm products. On two occasions, Coolidge vetoed more thoroughgoing proposals to aid farmers to realize higher prices and dispose of their surpluses.

In 1929 Hoover favored an agricultural marketing bill to give relief to farmers through a Farm Board designed to stabilize prices and keep down production. Labor was farther reinforced in its struggle for collective bargaining by the anti-injunction law of 1932 under the leadership of Senator Norris and Representative Fiorello H. LaGuardia, both Republicans. When the crash of 1929 occurred, Hoover foresaw "pros-

perity just around the corner" and gradually took steps to meet the depression by proposing a public works program and setting up the Reconstruction Finance Corporation to make loans to large business and industrial concerns and the Home Owners' Loan Corporation to make loans to property owners. The depression became so acute, however, that the voters were dissatisfied with Republican attempts to stem the tide and elected Franklin D. Roosevelt and the Democratic party by an overwhelming majority in 1932.

The New Deal. For over 12 years President Roosevelt remained in office, smashing all traditions against a third term and achieving the unparalleled distinction of being elected for a fourth term. He defeated Alfred M. Landon in 1936, Wendell Willkie in 1940, and Governor Thomas E. Dewey in 1944. Taking office in the dark days of March, 1933, with most of the major banks in the country closed, President Roosevelt set out to restore confidence, relieve suffering, prime the pump of business, and move toward social reform on a broad front. Many of the steps the New Deal took were not new, but they were taken so rapidly and vigorously that enormous changes took place between 1933 and the beginning of the Second World War. Only some of the high lights can be mentioned here.

Extensive measures for control and regulation of the banking, credit, and currency structure of the nation were instituted to prevent bank failures and fluctuations in the values of money and protect the funds of bank depositors. Vast sums were loaned to all sorts of institutions and individuals through the Reconstruction Finance Corporation, Home Owners' Loan Corporation, Federal Housing Authority, Federal Farm Credit Administration, and other such agencies. Many and varied efforts were made to stimulate employment and regulate the relation of prices and production of goods by means of the Agricultural Adjustment Act for farm goods, the National Industrial Recovery Act for industrial goods, the Securities Exchange Commission for stocks and bonds, and the Federal Communications Commission for certain public utilities.

The attack on unemployment took the form not only of pump priming by loans to business but also of direct aid to less privileged Americans in the effort to restore the buying power of the masses of people and thus create the means of stimulating production. The Federal Emergency Relief Administration helped states to meet their ever-mounting relief rolls; the Civilian Conservation Corps and the National Youth Administration provided jobs and training for youth; the Civilian Works Administration subsidized many kinds of temporary service jobs; the Public Works Administration stimulated public building programs; and the Works Progress Administration gave a variety of jobs to millions of unemployed. New conceptions of public planning on a broad scale were

carried out by the Tennessee Valley Authority, the Soil Conservation Service, the Rural Electrification Administration, the Resettlement Administration, and the National Housing Agency. Direct aid to the unfortunate and the principle of a minimum of security below which the government would not allow persons to go were involved in the Social Security Act, which provided a wide range of benefits for the unemployed, the dependent, the handicapped, and the aged.

Encouragement to organized labor was given by the original NIRA and by the National Labor Relations Act, which was sponsored by Senator Robert F. Wagner of New York and which created the National Labor Relations Board to enforce the principles and practices of collective bargaining. For unorganized labor the Wages and Hours Act set minimum wages of 40 cents an hour and a maximum of 40 hours a week in many enterprises. Despite the opposition of many the major elements of the New Deal program seem to have been the kind of solution to the problem of the critical depression years that enlisted the support of the majority of Americans.

With the onset of the Second World War the emergency powers of President Roosevelt were enormously expanded by Congress, and government control and regulation were extended to almost all phases of the American economy. Mobilization of man power for military service was assigned to the director of Selective Service. Mobilization of man power for war production was assigned to the War Manpower Commission. Mobilization of war industries was successively in the hands of the War Production Board, the Office of Production Management, the Office of War Mobilization, and the Office of War Mobilization and Reconversion. Price regulations and the rationing of goods were in charge of the Office of Price Administration. Existing plants were taken over by the government; immense new plants were built by the government or by private industry with government help; workers were "frozen" in their jobs or required to transfer to jobs more essential to the war effort; and taxes of all kinds jumped to a new all-time high, with income taxes levied upon millions never before affected.

Upon the sudden death of President Roosevelt in April, 1945, and the end of the war against Germany and Japan, President Truman promptly outlined his plans for removing wartime controls and at the same time speeding reconversion and extending social legislation, largely in the framework of the New Deal. In his speech to Congress on Sept. 6, 1945, President Truman proposed the following steps: a federally supported program of unemployment compensation of \$25 a week for 26 weeks; an increase of the 40 cents per hour minimum wage standards; "full employment" regulations according to which government public works would be developed if private enterprise did not provide jobs for all;

creation of a permanent Fair Employment Practices Commission to prevent racial and religious discrimination by employers and labor unions; lifting of rationing as soon as commodities became sufficiently plentiful; gradual lifting of war powers and reorganization of the executive branch of the government; abolishing of the War Labor Board and the holding of a labor-management conference in Washington, D. C.; return of the United States Employment Service to the states; support for farm prices and a crop-insurance program; compulsory military service of 2 years' duration for all men between eighteen and twenty-five years of age; a federal slum-clearance program and a federal plan to build a million new homes a year; gradual reduction of taxes; more liberal provisions for the medical care, education, and rehabilitation of veterans; a large program of federal public works and conservation of natural resources; and promise of extensive federal programs for health insurance, social security, and education. Despite the difficulties that parts of this broad program ran into and could be expected to run into, it pointed to the fact that the federal government was squarely in the middle of the process of creating a better life for Americans. The trends of more than 50 years were being accelerated.

In 1943 the National Resources Planning Board, appointed by President Roosevelt, presented its postwar program for extending social security, social service, and full employment. Although it met the hostility of conservative members of Congress and although the board itself ceased to exist because the House of Representatives refused to appropriate funds for its continuance, the "new bill of rights" that it constituted met a ready response among socially minded persons who felt government and private enterprise should cooperate to achieve a fuller life for all the people. The board's program included the following points:

- (1) *The right to work*, usefully and creatively through the productive years;
- (2) *The right to fair pay*, adequate to command the necessities and amenities of life in exchange for work, ideas, thrift, and other socially valuable service;
- (3) *The right to adequate food, clothing, shelter, and medical care*;
- (4) *The right to security*, with freedom from fear of old age, want, dependency, sickness, unemployment, and accident;
- (5) *The right to live in a system of free enterprise*, free from compulsory labor, irresponsible private power, arbitrary public authority, and unregulated monopolies;
- (6) *The right to come and go, to speak or to be silent*, free from the spying of secret political police;
- (7) *The right to equality before the law*, with equal access to justice in fact;
- (8) *The right to education*, for work, for citizenship, and for personal growth and happiness;

(9) *The right to rest, recreation, and adventure*, the opportunity to enjoy life and take part in an advancing civilization.

Whether or not the United States could achieve this ideal depended upon the will to make democracy work at home and the will to cooperate for international peace abroad. All such ideals would be jeopardized, if not made impossible, by another world war.

International Relations

In 50 years the United States became a great world power, fought in three wars, engaged in several minor military expeditions, and shifted its major intentions from a policy of nationalism and imperialism to one of world cooperation. In each case, public opinion was divided, and strong minority opposition made its weight felt. When McKinley was reelected in 1900, the Republicans justified their prosecution of the Spanish-American War and the acquisition of the Philippines and Puerto Rico on the grounds of the duty of the United States toward the underprivileged peoples of the islands and the defense of American nationalism. Bryan and the Democrats lashed Republican imperialism and the use of military force for such ends, but they were rebuked at the polls.

President Theodore Roosevelt pursued a foreign policy of extending the position of the United States as a world power by building up the navy, keeping an open door in China, building the Panama Canal, and stating the principle that the United States had the right not only to keep European countries out of Latin America but also to intervene in the domestic affairs of any Latin-American country that could not fulfill its international obligations and keep order at home. President Taft continued and extended the policy to mean that the government should protect American business interests abroad. Under this notion of "dollar diplomacy" Taft landed the marines in Nicaragua, and Wilson sent military forces to Santo Domingo, Haiti, and Mexico to establish order and protect American interests.

When the First World War broke out in Europe in 1914, Wilson officially proclaimed the neutrality of the United States, and most Americans were confident that "we would stay out." It was soon apparent, however, that the United States could not trade freely with the belligerents and expect immunity for its ships, cargoes, and personnel. Great Britain established a blockade of Europe, and Germany sank neutral ships, and against these acts Wilson protested to both governments. When Germany declared unlimited submarine warfare against American ships and would not guarantee the safety of American lives, Wilson, after several exchanges of notes, asked Congress to declare war in April, 1917. Broad war powers were given to Wilson despite the opposition of

large pro-German and anti-English groups in America. To some, the war was indeed a war to make the world safe for democracy and to end all wars; to others it was another and greater imperialistic venture in affairs that were not our own. By the time of the Armistice, the United States had suffered more than a quarter of a million casualties in dead, wounded, and missing.

When Wilson returned from the Peace Conference and presented the plan for a League of Nations to the Senate, all the latent opposition to a hard peace for Germany, cynicism about Germany's war guilt, anti-British feeling, and growing antagonism to Democratic policies were brought to bear upon the Senate debates in 1919. A Republican majority in Congress argued against the League on the grounds that it would infringe upon the rights of Congress to declare war and would involve the United States in future foreign wars that were none of our business. Wilson argued that the United States could not be forced to go to war against its will and that it was our moral obligation to lend our weight to the preservation of world peace. Senator William E. Borah and the older Senator Henry Cabot Lodge, chairman of the Foreign Relations Committee, led the Republican attack upon the League and insisted upon reservations to preserve the sovereignty of the United States.

Wilson remained adamant against any reservations and called upon the Democrats to ratify the League. In March, 1920, the League failed to receive Senate approval by eight votes, and the United States turned its back on official cooperation for world peace. Wilson hoped that the people would back him up in the elections of 1920 by voting for Cox and Roosevelt, but Harding and Coolidge were elected, a separate peace was signed with Germany, Austria, and Hungary in 1921, and the new administration until exposed in the public press did not even reply to communications from the League. Unofficial observers were sent to League meetings, treaties were voluntarily deposited with the League, delegates were sent to several international conferences, and Harding, Coolidge, Hoover, and Roosevelt successively recommended joining the World Court, but no approval was given by the Senate. Most Americans were apparently satisfied that we could go our own way in international affairs.

With the deterioration in international affairs in the 1930's, the United States began to try to move in two directions. In 1934 the Johnson Act prevented any new loans to countries that had failed to pay their war debts, and in 1935 the Neutrality Resolution forbade the sale of arms and munitions to any future belligerent. The neutrality position was overwhelmingly strengthened in 1936, and aggressor nations were further encouraged. However, in 1937 the tide began to turn in the United

States. In his famous "quarantine" speech in Chicago in 1937 Roosevelt declared that nations of good will must cooperate against would-be aggressors. Reciprocal trade treaties were signed with many nations through the efforts of Secretary of State Cordell Hull; and in 1938 President Roosevelt asked for bigger appropriations for the navy.

When war broke out in Europe in 1939, the United States was torn by the arguments of "interventionists" and "isolationists," but gradually most people began to see the handwriting on the wall. The neutrality provisions were relaxed; naval and air bases in the Western hemisphere were leased from Great Britain in exchange for 50 over-age destroyers, the Selective Service Act was passed in 1940 and the Lend-Lease Act in 1941. Public opinion was so delicately balanced that renewal of the Selective Service Act in 1941 was passed by one vote, a few months before Pearl Harbor. When the Japanese struck in December, 1941, most of the open debating ceased, and most Americans turned to the job of winning the war.

The impact of events had done more than all the arguments to convince the American public of the need for world cooperation. Therefore, many steps were taken before the end of the war to prepare the way for continued cooperation. Aside from the international conferences at Moscow, Teheran, Yalta, Potsdam, and elsewhere, preparations were also being made at home. A liaison committee between the State Department and the Senate and House Foreign Relations Committees was at work in 1943; the Fulbright Resolution in the House and the Connolly Resolution in the Senate in 1943 and the Republican and Democratic campaign platforms in 1944 all expressed the intention of the United States to join an international organization.

The preparatory work conducted in relation to UNRRA, Bretton Woods, Dumbarton Oaks, and the Pan-American Regional Security System all paved the way for the San Francisco Conference and the ratification of the Charter of the United Nations Organization. The American delegation to San Francisco not only included three Democrats headed by Secretary of State Edward R. Stettinius and Senator Tom Connolly, but also three Republicans headed by Senator Arthur H. Vandenberg and former Governor Harold E. Stassen of Minnesota, in addition to four others. Advisors to the delegation included representatives of many political, industrial, labor, scientific, educational, and other organized groups. President Roosevelt had brought a wide range of public opinion and support into the process of planning for American participation in an international organization and thus had avoided the political and tactical mistakes of the debates over the League of Nations. The hope of the world was that the will to join would be matched by the will to make the new organization work.

Contradictions in the American Economy

In the first 50 years of the twentieth century it became increasingly clear that certain great contradictions were appearing between the promises of historic individualistic capitalism and actual practices in American economic life. Perhaps the most striking discrepancies had to do with production of goods and the distribution of incomes. Capitalism had claimed to be able to provide greater production than any other economic system in the world, and yet scientific studies made in the 1930's showed that even in 1929 the total productive powers of the country were operating at far below capacity of the then existing production plant. The Survey of Potential Product Capacity, conducted by Harold Loeb and associates, showed that the nation was producing at only 70 per cent of capacity in the peak year of 1929, and the more conservative estimate of the Brookings Institution estimated that production was only 80 per cent of capacity.

The best estimates thus agreed that, if the productive plant had been working at full capacity, the United States could have produced from 20 to 30 per cent more than it did. In the depression year of 1932 production had fallen to 50 to 60 per cent of capacity. The estimates had said that the United States could have produced around \$135,000,000,000 worth of goods if production had been at full capacity in 1929. That they were fairly accurate was proved by the fact that in 1943 the United States produced over \$150,000,000,000 worth of goods under the pressures of war and government stimulation and regulation. Patently, free enterprise, if left to its own devices, did not produce as much as it could.

Even more striking was the extent to which the United States had failed to achieve the promises made by laissez-faire capitalism that it had provided the highest standard of living in the world for *all* people. The distribution of incomes, described by the National Resources Committee for the year 1935-1936, showed that 27 per cent of American families received less than \$750 a year; 42 per cent, less than \$1,000 a year; 64 per cent, less than \$1,500 a year; 83 per cent, less than \$2,000 a year; and 91 per cent, less than \$3,000 a year. Not only was "one third of a nation ill-housed, ill-clothed, and ill-fed," but the concentration of income in the higher brackets was astonishing. Three per cent of the families at the top of the scale received an aggregate income of about 21 per cent of the total income of the nation, which was about as much as the lowest 50 per cent received. One per cent at the top received almost as much as 40 per cent at the bottom. It seemed clear that there was "widespread poverty in the midst of potential plenty." Incomes and production, of course, jumped tremendously during the two World Wars, and people began to wonder why something of the

same sort of consolidated effort could not be applied to peacetime production and consumption.

It became clear, too, that the promises of constantly expanding employment had not been met, for investigators found that the number of unemployed became greater in each depression, the most severe of which were in 1907 to 1909, 1921 and 1922, and 1930 to 1933. Advocates of free enterprise argued that depressions were simply a part of the natural business cycle and were to be expected; but as unemployed rolls mounted to the extremes of the early 1930's, many began to wonder what was natural about it and turned to the government for aid. The historic doctrines of laissez-faire capitalism had been designed to keep government out of business; but when the depths of the depression hit business and industry so hard, businessmen and industrialists turned to the government for help just as enthusiastically as did the unemployed. Whereas the capitalist doctrines had put faith in the profit motive and private property as the essential economic ingredients of human nature, it became clear that, for the nine-tenths who owned no property and who relied upon salaries or wages for income, profit had given way to security as the principal economic motive for work and effort.

The historic theory of free competition in an open market operating according to automatic laws of supply and demand had also given way to the actual practices of price fixing and regulation of production by great corporations and monopolies. More and more people began to feel that if these practices were to continue they would prefer that prices, production, and wages were regulated by the joint efforts of government, labor, and management, rather than leaving such matters entirely in the hands of private owners and management. Whereas advocates of free enterprise had proclaimed that planning was alien to the American way of life, many began to see that a great amount of economic planning went into the management of huge corporations; and they began to insist that government and labor should have a larger share in planning in order to ensure that the benefits of planning would accrue to the general welfare.

Whereas individualistic capitalism had identified itself historically with the growth of democracy and insisted that freedom of opportunity and enterprise could exist only under private auspices, many Americans began to suggest that an unmodified capitalism was a threat to the continued freedom and welfare of the majority of people, who had less and less opportunity to rise unaided as individuals in the economic scale. All these doubts and questions about historic capitalism led to the increasing support for social legislation by the government that culminated in the New Deal. The industrial and technological trends that had begun in the nineteenth century had now progressed so far that technical

efficiency could produce a higher standard of living for all if only the economic system could be kept working efficiently. This became the principal political and economic problem for democracy to solve as the twentieth century wore on.

Social Trends

One of the most significant developments in the twentieth century was the growth of organized labor. As economic power became ever more concentrated in the hands of bankers, financiers, huge corporations, employers, and owners, the only recourse of the unpropertied workers was to organize more solidly in order to gain somewhat equivalent economic power. This trend, which seemed so hopeful to millions of workers, seemed most ominous to employers. Although radical elements in the labor movement were represented by the Industrial Workers of the World (organized in 1905 by Eugene V. Debs and others) and by the Communists after 1920, the main stream of organized labor was content to work within the established economic system.

In general, labor set out to achieve its aims of a greater share in the economic goods of the nation through strikes and collective bargaining as means to achieve higher wages, shorter working hours, better conditions of work, and greater security for workers and their families. Entering the twentieth century with something less than 1,000,000 members in organized labor, the movement grew, despite setbacks during the great depressions, until, principally by the recognition and support of the New Deal, it had enrolled approximately 15,000,000 by the end of the Second World War. The National Industrial Recovery Act, the Anti-Injunction Law, and the National Labor Relations Act had been landmarks of legislative action in this growth and legal recognition of the rights of labor.

In 1935 the ranks of the American Federation of Labor (A.F. of L.) were torn by a growing conflict between two theories of the labor movement. The A.F. of L., under the leadership of William Green, Matthew Woll, and others, had historically stood for the idea of "craft unionism." Skilled workers of a specific trade were organized into locals established throughout the country, culminating in a national union that cooperated with other national unions in the American Federation of Labor. Much had been achieved in social legislation and in the establishment of a separate Department of Labor in the federal government in 1913. Among certain labor leaders, however, a different theory of organization began to appear. They insisted that the newer conditions of industrial society had made the craft unions obsolete and that complete industries should be organized into one union to include all the skilled and unskilled workers in an industry, no matter what their level of special skill. This conception of "industrial unionism" was advocated by

such men as John L. Lewis, David Dubinsky, Sidney Hillman, and Philip Murray. In 1935 a Committee for Industrial Organization was organized under the leadership of Lewis to pursue this type of organization within the American Federation of Labor. This set off a series of conflicts between the new committee and the leaders of the A.F. of L.

By 1938 the labor disputes had grown so heated that 10 unions withdrew from the A.F. of L. and formed the Congress of Industrial Organizations (C.I.O.) under the leadership of Lewis, who was followed later by Philip Murray. The C.I.O. grew steadily in power, especially in such basic industries as the automobile, steel, clothing, and transportation industries, and even in the agricultural field. It proved itself to be more aggressive in combating company unions, using the techniques of the "sit-down strike," and in pursuing social reform through its Political Action Committee, which went directly into political campaigns to support certain candidates and oppose others. For these reasons and because of charges of Communist infiltration into its ranks, the C.I.O. incurred the wrath of both the A.F. of L. and industrial management, but it continued to prosper. Despite several efforts, the two major labor organizations could not heal the breach, and the divisions served to weaken labor's position in the nation, but such great gains had been made that organized labor had become an enormously important factor in the political and economic life of the country.

Another social trend of vast importance was the decline in the rate of population growth. Population continued to increase in the twentieth century, but with the reduction of immigration to a trickle the rate of increase declined in 25 years to such an extent that it was estimated that, somewhere around 1970 or 1980, the United States would have a stationary population, with the highest peak at something over 150,000,000 persons. The steady decline in the birth rate that had been apparent for decades was halted by an increase beginning in 1941. Perhaps even more important was the fact that the reproduction index was lower in the cities than in the rural sections and that the highest birth rates were in the rural South, which had the poorest economic and educational conditions in the nation. The large cities no longer maintained their populations by their own births.

Likewise of vast importance for the status of the family was the great influx of women into business and industry, a trend enormously accelerated by the Second World War. Juvenile delinquency increased rapidly, and the effects upon moral and mental welfare were hard to calculate. The tremendous migrations of warworkers to and from all parts of the country uprooted families and created disturbing social problems of adaptation for countless communities. The normal complexities of life, to be expected from improvements in inventions, technology, and com-

munication, were further complicated and expanded by the unsettled conditions of the Second World War. Severe adjustments faced families and education in the postwar period.

Intergroup Relations

Another realm in which the American ideal of democratic opportunity for all was not fully realized in practice was in the relationships among religious, nationality, and racial groups. The United States had preached equality of opportunity, but prejudices, hatreds, and active discriminations against large numbers of Americans continued to be a source of conflict and unrest in the United States. Many such prejudices arose from economic insecurity and fear of unemployment or economic competition. It is noteworthy that the hate campaigns rose in intensity in war periods and in economic depressions.

Religious groups. Organized religious groups continued to play a large role in twentieth-century American life. Membership continued to increase until in 1945 more than 72,000,000 people representing 256 denominations were counted as church members, according to the *Yearbook of American Churches*, edited by the Federal Council of Churches of Christ in America. The largest single denomination was the Roman Catholic Church, with some 23,400,000 members; the various Baptist Conventions accounted for nearly 13,500,000; Methodists, 8,000,000; the principal Lutheran churches, 3,000,000; Episcopalians, over 2,000,000; Presbyterians, 2,000,000; Disciples of Christ, 1,600,000; Congregationalists, 1,000,000; and Jewish congregations, 4,600,000. In round numbers, the principal Protestant demoninations totaled some 33,000,000; the Roman Catholic Church, 24,000,000; and Jewish congregations, less than 5,000,000. The official stand of the major religious bodies was, of course, against religious intolerance and bigotry, but religious antagonisms were fostered by many kinds of groups that drew from one or more of the recognized denominations.

Following the First World War the Ku Klux Klan was revived among Protestant followers and expanded its objects of hate to include principally Roman Catholics and Jews as well as Negroes. In the early 1920's it spread to most of the states in the Union and is estimated to have embraced some 2,500,000 people in 1923. Organized anti-Semitic campaigns became popular in the early 1920's through many organizations and publishing ventures as well as by whispering campaigns and discrimination in employment, business, educational institutions, clubs, hotels, and resorts. Following the depression of the early 1930's and the rise of Nazism in Europe, anti-Semitism was also sponsored in the United States by the German-American Bund and by all kinds of Brown Shirts, Silver Shirts, and White Shirts. Although driven under cover by the

Second World War, it was likely that such hate organizations would reappear in some other form following the Second World War.

To combat these movements, men and women of good will of all religious faiths began to organize to combat the hate campaigns and promote the ideals of mutual respect and cooperation. Notable among many were the Federal Council of Churches of Christ in America, the National Conference of Christians and Jews, the American Jewish Congress, and the National Catholic Welfare Council. On the legal and political front, several steps were taken to promote amity and prevent discrimination against ethnic and racial as well as religious groups. Outstanding were the Fair Employment Practices Committee appointed at the national level by President Roosevelt and supported by President Truman, state action such as the New York State Commission against Discrimination and governors' commissions in more than 16 states, and hundreds of local mayors' committees on interracial and interreligious cooperation. The F.E.P.C., however, succumbed on June 30, 1946 to the postwar reaction. Its final report showed a rise of discriminatory practices, especially directed at veterans.

Nationality groups. In the early part of the twentieth century the flood of immigration from Europe reached its peak, especially from central, eastern, and southern Europe. Despite the cutting off of large-scale immigration in the 1920's the proportion of first- or second-generation citizens of foreign birth was very high. In 1930, some 12 per cent of the total population was foreign-born, and another 20 per cent had foreign-born or mixed parents. In addition, some 10 per cent of Americans were Negroes. Therefore, substantially less than 60 per cent of Americans were native white persons with native-born parents. The United States was truly a mixture of nearly all the nationalities of the world; but, despite the ideal of welcome to all peoples, Americans still consciously or unconsciously fostered group prejudices against the more recent immigrant groups.

Organized hate groups fostered prejudice against "foreigners" and "aliens," but even more pervasive were the stereotypes used by authors of books, newspapers, radio, motion pictures, and plays. In 1944 the Writers' War Board asked the Bureau of Applied Social Research at Columbia University to investigate the stereotypes in common use and found that writers generally fostered the false impression that the United States was a Protestant, white, Anglo-Saxon nation with a sprinkling of largely "undesirable" persons of different religious, racial, and national stocks. Short stories seemed to be the worst offenders, with more than 90 per cent of the characters pictured as Anglo-Saxons and the villains or unscrupulous characters nearly always "foreigners." Advertisers were admittedly snobbish in their popular appeal, and the press

and radio were generally not as liberal or conscientious as the comic cartoon books, the stage, and the novel. As the Second World War progressed, however, many notable contributions to better understanding of group relations were made by an increasing number of authors.

Racial groups. Antagonism against Japanese-Americans broke out in new fury after the Japanese attack on Pearl Harbor, and the government was obliged to set up restricted centers for Japanese-Americans under the War Relocation Authority. Their problems were likely to be even more difficult after the war was over. The largest minority racial group in the United States, the Negroes, comprised about 10 per cent of the population; and the problems of Negro-white relationships constituted one of the most critical points at which the American ideal of equality of opportunity had not been fully realized.

The Second World War brought the problem of race and color to the forefront again as the United Nations fought against the racial doctrines of the Nazis and Japanese as much as against their political doctrines. At home, the problem became acute as mass movements of Negroes to war-industry centers took place and as violence broke out in many industrial centers, principally in the riots in Detroit in 1943. The housing situation was critical, and discrimination in employment was still high in many industries, but great gains were made through the efforts of the Fair Employment Practices Committee and of progressive employers and unions, especially the C.I.O.

Despite the attacks upon Negroes by influential persons in the South and in the United States Senate, political gains were made against the poll tax and for the freedom of Negroes to vote in Democratic primaries of the South, as a result of the Supreme Court decision in the Texas primary case. Despite segregation in many branches of the armed forces, conditions improved as the war progressed and as criticism was leveled at the army and navy. The press, stage, and screen supported equality of opportunity for Negroes, and many community groups as well as national organizations marshaled their forces to the same end. All the principal churches began similar campaigns.

Notable among other groups that began to redouble their efforts were the Common Council for American Unity, the Council against Intolerance in America, the Julius Rosenwald Fund, the Council for Democracy, the National Association for the Advancement of Colored People, the National Urban League, the Southern Regional Council (which later became the Southern Conference for Human Welfare), the American Council on Race Relations, and the Bureau for Intercultural Education. A flood of literature and programs of action began to be formulated as people of good will began to sense the difficulties of the postwar period and to realize that the war won so thoroughly in a military sense

might be lost at home if intergroup relations deteriorated sufficiently to disrupt the postwar reconversion and thus deny to millions of Americans the values for which they had worked and fought.

THE IDEAS MEN LIVED BY

American education in the twentieth century was affected by a wide range of social, religious, and intellectual ideas, as well as by the institutional forces mentioned above. Many of these ideas came into conflict and revealed fundamental controversies that were reflected in educational controversies. Although a detailed analysis of such points of view cannot be undertaken here, something of the range of outlook can be suggested.

Social Ideas

Four or five general social outlooks were proposed to the American people at various times during the twentieth century as programs for political and economic action. They might be identified as traditional conservatism, reform liberalism, socialism and communism, consumer cooperation, and fascism. One or more of these various positions were to be found in the major and minor political parties, as well as in a large number of organized groups of all kinds, including the professions, labor, business, farmers, churches, fraternal orders, veterans, patriotic organizations, women's clubs, and specialized pressure groups of all kinds.

The conservative position held rather closely to the historic ideals of individualistic and laissez-faire liberalism as developed in the eighteenth and nineteenth centuries. In general, this position affirmed that the principles of historic capitalism and free enterprise were basically sound and that public welfare would be served best by releasing business and industry from government control and regulation. In the 1930's, conservative spokesmen laid the blame for the depression upon the restrictive policies of the New Deal that caused business to lose confidence and profits because of the interference of government. Their principal program was to keep the government out of business but use it as an umpire to ensure free competition and to restrain monopoly in the interests of freedom for individual enterprise. Democracy to them meant the reaffirmation of capitalism and the profit system with a minimum of government planning, which would lead, if unchecked, to regimentation and the destruction of freedom. In their view the basic character of American society was sound. The principal support for this position seemed to come from the Republican party, the wealthy and upper middle classes, and a large number of small businessmen and farmers.

A more aggressive outlook toward liberal reform was taken by an

increasing number of persons, whose ideas stemmed from the humanitarian and social trends of eighteenth- and nineteenth-century liberalism. The outlook was represented principally in the United States by the New Deal adherents of President Roosevelt in the Democratic party. In general, according to this position, capitalism needed drastic reforms in order to make it appropriate to the changed conditions of industrial society. The proponents of this view set out to expand the powers of government to regulate business and monopoly practices, increase the buying power of the people, and ensure the social security and welfare of larger numbers of people. Cooperation of government, business, labor, and consumer in planning economic affairs became a fundamental principle of action and was considered to be an authentic embracing of the democratic ideal. In general, the liberal reformers felt that historic capitalism must be reconstructed if it were to weather the political and economic storms of the twentieth century. This position drew its support principally from lower-middle-class groups, labor, small business, farmers, and liberal intellectuals. It was agreed that collective action was necessary, but that it could be carried on within the framework of political democracy.

The socialist-communist orientation stemmed from a Marxist view, which held that capitalism is basically a sick economy in which the profit motive prevents a fair distribution of the goods of the world. Therefore, capitalism must be done away with, and state control must substitute for private enterprise a nonprofit, planned economy. The present state is simply an instrument of control by which the capitalist groups maintain themselves in power. Advocates of this orientation split on fundamental methods of procedure. The Socialist party under men like Norman Thomas insisted that the forms of political democracy should be used in both short- and long-range efforts; power should be won by constitutional methods of voting, and owners should be compensated fairly when the basic industries were taken over by the government. The Communist party under Earl Browder and later William Z. Foster believed rather that power should be seized by the disciplined groups in a crisis. The government should be in the hands of a dictatorship of the party in the short range until such time as genuine democracy could be achieved in the classless society of the longer range future.

The Socialists and Communists split sharply over the war policies of the United States; many Socialists maintained a pacifist and isolationist policy on the ground that any war was a bad war; and the Communists opposed the war as an imperialist war until Soviet Russia was attacked and then supported America's participation as a world war against fascism. The American Communist party in general followed

the policy that a world communist order must be built around support for the Soviet Union. Both parties gained their support from laboring groups and radical intellectuals.

Consumer cooperation and fascism did not express themselves through organized political groups on the scale that the other positions did. The cooperative movement spread widely through agricultural, small-business, and consumer groups as a gradual means of decreasing the emphasis upon the profit system and manufacturers' interests in production. The cooperative ideal favored joint planning by government, labor, and consumer as a means of distributing goods more equitably throughout the population and gradually replacing historic capitalism peacefully in the direction of greater collective action. Cooperatives laid little stress upon the role of government in reform except that a friendly political state was necessary for their development. The cooperative movement drew its supporters from families and farmers, especially in depressed areas, and from labor and intellectuals.

Fascism, of course, held that the whole notion of a democratic and liberal society was false. Power should rest in the hands of the elite, who should attack with all means of violence and intrigue those who stood in the way, capitalists, labor unions, liberals, and communists. To gain strength from the underprivileged groups and to build a strong, disciplined, single party, attacks should be made upon Jews, Negroes, and other minority groups of various "foreign" nationalities. The fascist doctrines of violence, force, and authoritarianism were openly expressed by only a few American intellectuals, notably Lawrence Dennis; but, under the cover of other phraseology, fascist tendencies appeared in hate groups appealing to all classes of people from the wealthiest to the poorest. Wherever the principles and practices of democratic equality were undermined, there was fascism.

World Views, Human Nature, and Intelligence

Religious and intellectual loyalties also carried great weight among people in the twentieth-century United States, although often less well formulated in the minds of ordinary people than in the minds of religious and intellectual leaders. Religious outlooks continued to range from the most literal and orthodox interpretations of the Bible in the hands of fundamentalists to more liberal positions. Some modernists tried to keep the basic conceptions of God and yet harmonize science and religious conviction by making Christ a human teacher rather than a divine representative of God. Other more extreme modernists gave up the divine interpretation of God, Christ, and the Bible and based their ethical teachings upon social improvement rather than upon worship. Complete atheism attracted only a minority of intellectuals.

The clash of fundamentalism and the more liberal doctrines of science was high-lighted in Tennessee in 1925, when John Thomas Scopes, a high school teacher, was brought to trial because of his teaching of the doctrines of evolution in violation of state law. Scopes was defended by Clarence S. Darrow and prosecuted by William Jennings Bryan. The right of teachers to rely upon findings of biological science rather than upon the literal interpretation of the Bible in describing the origin of man was argued with great skill and attracted much public attention. The trial showed that religion and science had not been reconciled in the public mind and that fundamentalism was still a powerful force, especially in the rural United States.

Among the intellectual formulations concerning human nature and the relation of man to nature, there were three outstanding points of view that had great influence upon American education. Many educators and philosophers appealed to tradition for their principal assumptions; among these were the New Humanists, the intellectualists, and Roman Catholic leaders. Others appealed to physical science for their standards of authority in describing the world and human nature. Still others appealed to the newer conceptions of evolutionary thought, pragmatism, and social reform for the development of a philosophy of life and education commonly known as experimentalism.

The Appeal to Tradition

New Humanism. Stemming from the historic philosophic outlooks of idealism, rationalism, and dualism, a philosophy of human nature and education that looked to the Great Tradition for sustenance, and therefore properly called conservative, continued to be stated forcibly and effectively in the twentieth-century United States. Among the most extreme conservative outlooks was one that took the name "New Humanism." Although there were, of course, differences in the position of those who called themselves Humanists, nevertheless there were certain fundamental assumptions that they all accepted sufficiently to warrant grouping them together. Inspiration for the Humanist position stemmed in the early decades of the twentieth century from the work of Charles Eliot Norton of Harvard, Stuart P. Sherman, and Paul Shorey; it was advocated later by Irving Babbitt of Harvard, Paul Elmer More of Princeton, Albert Jay Nock of Columbia, and Norman Foerster of the University of Iowa.

In general, the New Humanism involved a defensive reaction against the upsetting implications of modern social and scientific theories. In social theory, it reasserted the claims of an aristocratic and social conservatism against the humanitarian demands of social reform. Babbitt stated explicitly that Humanism was interested in the discipline of the

few rather than in a benevolence toward all men and in the perfection of the individual rather than in the elevation of mankind as a whole. Humanism demanded a renewed effort of the ascetic qualities of "intellectual discipline" to control moral conduct more severely so that it will not get out of hand in the direction of spontaneity and naturalism. Intellectually, the New Humanism repudiated the leadership of the natural and social sciences in the affairs of life and reverted in essence to traditional philosophy as represented by Plato, Aristotle, and medieval Scholasticism.

Among the most extreme of the Humanists (but implicitly represented in all), the most fundamental postulate was the reaffirmation of the essential dualism between man and nature. They believed in an *absolute* distinction between man and the world of nature, and they believed that man has certain unique, universal, and eternal qualities that set him off from the lower forms of nature. In other words, the extremists denied the essential implications of the evolutionary doctrine that the natural and social sciences had been at such pains to establish. Here the Humanist approach closely paralleled the traditional faculty psychology, for the Humanists spoke of human nature as if it were a separate substance or entity.

The faculties that distinguish man from lower animals were usually described as conscience, reason, sense of beauty, and religion. The Humanist insisted that moral conscience is a part of man's original endowment and that it does not admit of degrees, for it is absolute. Reason is a universal ability to draw distinctions and form judgments. Man's sense of beauty is curiously independent of time and sets him immeasurably above the rest of the animal world. Finally, some Humanists stated, the religious instinct is universal in man. These qualities of human nature cannot be described by the scientific method; rather, this conception of human nature has come down to us as from ancient classical thought, supported by the Christian religion and medieval thought.

These assumptions of Humanism have specific implications for distinctive conceptions of knowledge, truth, and human values. The Humanist believed in absolute standards of value by which the knowledge or truth of a situation may be tested. Values for the Humanist were somehow related to a sphere of existence that is above and beyond nature and that gives to knowledge and truth an unchanging and authoritative character. Knowledge, then, took on the character of a fixed body of true principles, which are to be handed down as the heritage of the race.

Stemming from this desire to introduce order into the chaotic world of society by appealing to a higher and fixed realm of values that lies

behind the flux and flow of experience, the Humanist's conception of learning and of education took form. Learning has to do especially with that faculty of human nature which is termed reason, or intellect, and the main aim of learning is thus the discipline and development of the intellectual powers of discrimination and judgment. The Humanist argument followed that the studies that best present the enduring principles of absolute truth and that most effectively develop the intellect are contained in the great literature of the past, namely, the Humanistic studies.

Catholicism. Closely allied to the Humanist position in many respects, but obviously going beyond it in its reliance upon supernatural values, the Catholic philosophy continued to receive effective statement by such persons as Jacques Maritain and the Reverend Robert I. Gannon, president of Fordham University, and in books on education by J. N. Brown, R. J. Deferrari, Geoffrey O'Connell, Louis Mercier, and W. F. Cunningham. Underlying all statements of the Roman Catholic position was the encyclical letter in 1929 of Pope Pius XI, entitled *The Christian Education of Youth*. Catholicism, of course, went even further than the New Humanism in elaborating the dualism between the supernatural order of eternity and permanence, embracing God and all things sacred and spiritual, as against the natural order of change and flux, embracing the physical world of material values and practices. Man has a dual nature in which his immortal soul is the means of salvation and his physical body the seat of original sin and of human desires and appetites. Man is set off from the rest of nature by an impassable gulf by virtue of the supernatural gift of his soul and faculty of reason.

The rational faculties are the prime instruments of education and learning and are the means by which truth is discovered, insofar as man's finite powers can ascertain the truth. The mind's principal role is cognitive, that is, the acquisition, discovery, and verification of preestablished truth. Since all truth and knowledge originate in the supernatural order, man does not share in creating knowledge but simply in acquiring the principles of truth, which are permanent and eternal. The highest knowledge is supernatural revelation, to be ascertained as far as possible by reason, but beyond that by faith. Values for human conduct and destiny come from the supernatural world as interpreted by the church. Therefore, no education is complete or can, indeed, be true education unless it is permeated at every stage with religious values and religious discipline. As educational instruments, much reliance is put upon the classics and Scholastic philosophy, in addition to religious instruction. The Catholic point of view has, therefore, certain similarities in educational program with the Humanists and the intellectualists.

Intellectualism. Gaining wide public notice in the 1930's and 1940's, a group of persons, named here intellectualists, called upon traditional conceptions of human nature and intelligence in support of their claims. Outstanding among these were such men as President Robert M. Hutchins and Mortimer Adler of the University of Chicago, Stringfellow Barr and Scott Buchanan of St. John's College at Annapolis, Md., President Nicholas Murray Butler and Mark Van Doren of Columbia University, Abraham Flexner, and others. They agreed in many respects with the Humanists but had a less exclusive interest than they in the literary and linguistic emphasis. Drawing upon many of the historic mainsprings of Catholic philosophy but believing that religious doctrine could not be the synthesizing agency for American education, the intellectualists turned to traditional philosophy and the liberal arts for their standards of educational outlook.

Just as the conservative followers of the Great Tradition adhered to an underlying philosophy of rationalism, so did the intellectualists adhere to a theory of knowledge and psychology that, if not identical with the traditional faculty psychology of discipline, at least tends to emphasize the intellectual function as something distinct from the other activities of human beings. Of the two realms of life that dualism posits, the intellectualists definitely preferred the realm of mind as opposed to that of the body, or matter; they identified education with development of the mind and tended to neglect the other aspects of human activity. Their psychology prompted them to extol the benefits of such activities as "intellectual training," "cultivation of the intellect," "intellectual power," and "mental discipline." In their writings, there was much emphasis upon a return to "first principles" and "fundamental concerns."

There seemed to be three crucial points in the intellectualist theory of knowledge. (1) There is a separate faculty of intellect, or reason, which is somehow capable of reaching out and grasping truth. (2) Truth in its ultimate form is absolute and fixed and serves to give order to such lower forms of knowledge as scientific knowledge of the physical world and empirical knowledge of practical affairs. (3) In their adherence to fixed truth, the intellectualists stoutly maintained that intellectual affairs in the school and college should remain free of defilement by worldly matters.

These fundamental assumptions led the intellectualists to decry the great attention being given by American education to practical and useful studies, to scientific and technical studies, to practical experience, and to the freedom and interests of students as means to effective learning. They outlined what they believed to be the permanent studies appropriate to all youth at all times by virtue of a common and per-

manent human nature. They showed their reliance upon the traditional liberal arts of the Middle Ages, the rationalistic idealism of the Great Tradition, and a faculty psychology of formal discipline. Primary place in general education was given to the reading of the great books of the past and the study of formal grammar, rhetoric, logic, and mathematics as means of training the mind. When the intellectual virtues have been properly cultivated, they argued, the educated person would be fully equipped to solve problems of practical conduct and experience. The distinctive function of school and college is, however, intellectual in nature and not practical or moral.

The Appeal to Science

Reacting against the traditional conceptions of the conservatives, as outlined above, many educators in the twentieth-century United States began to look to modern science for their standards of authority and methods of work. Borrowing from the Newtonian conceptions of science and the Positivism of August Comte and Herbert Spencer in the nineteenth century, modern realists began to describe the world as a machine that obeyed fixed and immutable natural laws in which supernatural and rationalistic interpretations had little or no place. Believing fully in the scientific method, they believed that human nature could be investigated and analyzed by scientific methods with as much precision as the physical universe and physical phenomena. They discarded dualistic conceptions of man and described man as a complicated machine whose behavior could be predicted and even controlled with a high degree of accuracy and certainty. Man was therefore looked upon as an inherent part of nature, somewhat more complex in his structure and behavior than the animals, though much could be learned about man from the scientific study of animals. Most psychologists in the twentieth-century United States were brought up in the atmosphere of a scientific realism.

In the field of psychology, the development was so tremendous that only one or two generalizations can be made here. The experimental and scientific methods that had been envisioned in the latter nineteenth century developed with enormous rapidity in the many different fields of learning, instincts, individual differences, and emotions. E. L. Thorndike attacked the introspective and "faculty" psychology of an earlier day. At Teachers College, Columbia University, he virtually created "educational psychology" as he attempted to apply the methods of the exact sciences to certain educational problems. With the publication of his three monumental volumes entitled *Educational Psychology*, in 1913, attention in the United States began to turn more and more to an

"objective" psychology for the answers to problems of original nature, learning, and individual differences.

By his insistence that learning is highly specific, Thorndike made a frontal attack upon the doctrines of mental discipline, which had long held that certain studies are uniquely valuable for "training the mind" so that it can transfer its operations to any field whatever. Thorndike attacked this doctrine by asserting that the reflex arc is the hereditary unit of behavior, rather than a group of untrained "faculties," and that learning depends upon the number of bonds of connection and the ease with which they are established in the synapses of the nervous system.

Learning consists, not in a general training of unformed faculties, but in the formation of specific bonds of connection between a situation *S* and a response *R*. These *S-R* bonds are established in two major ways, according to Thorndike's famous laws of learning—by exercise and by satisfying effect. According to the law of exercise, connections are strengthened the more they are used and are weakened when not used. Other things being equal, the more frequently and the more recently the bonds are practiced, the stronger the connections and hence the more effective the learning. According to the law of effect, connections tend to be stamped in when the learning is satisfying and pleasant for the learner, and bonds tend to be weakened when the result is unsatisfying or unpleasant. Other things being equal, connections are established more easily when the action system is ready to act and less easily when it is not ready to act.

Under the impact of Thorndike's psychology, mental discipline received a major setback, especially in the elementary and secondary school practices of the United States. Thorndike pointed out that transfer occurs only when the content or the method of a school subject is similar to the use to which it is to be put; in other words, if students are to be educated for specific ends, they should study those subjects which contribute directly to those ends. This theory gave great comfort to the new scientific and social studies for which there was a growing demand throughout the country. Hence, specialized studies entered more easily into the elementary and secondary schools of the United States, but they were not accepted so readily into the traditional liberal-arts courses of colleges, which held more stubbornly to the doctrines of discipline.

Another characteristic development of the twentieth century was the creation of applied psychology to deal with industrial and educational problems of guidance, personnel selection and training, advertising appeal, and other phases of human relations. Clinical and abnormal psychology grew in proportion, to deal with variants from the average type of mental adjustment. Psychiatry was developed to deal more directly

with the physiological bases of psychological phenomena. Psychoanalysis, often condemned by the scientific psychologists, called attention to the influence of subconscious, or inner, motivations and desires, which when inadequately expressed result in detrimental complexes and undesirable behavior patterns. Social psychology gained recognition by studying specifically the relation of the individual to his complex social situation.

A notable company of educational psychologists who developed and expanded the scientific study of human behavior have often been grouped together as "functionalists" (see pages 547 to 548); despite their differences of approach and interpretation, they generally agreed upon the fundamentally scientific bases of their work. Outstanding in addition to Thorndike were J. McKeen Cattell, James Rowland Angell, Lewis Terman, Robert S. Woodworth, Charles H. Judd, Frank N. Freeman, and Arthur I. Gates.

More extreme in their interpretations of man as a completely measurable mechanism were such behaviorists as John B. Watson, Max Meyer, and A. P. Weiss. Aspiring to be able to predict human behavior with as much certainty as the physicist predicts physical phenomena, the behaviorists set out to formulate definite laws of human behavior on the basis of observable, external relationships. They discarded all concepts of consciousness, will, and sensation and simply tried to describe the measurable and outward aspects of behavior, building up most of their laws of learning upon the conditioned-reflex arc. Children are born, they stated, only with simple, inherited, and unlearned reflexes of fear, love, and rage as expressed in outward signs of attraction, rejection, crying, and other physiological responses. The whole complex of learned responses is built up by the acquisition of habits and verbal manipulations, called thinking.

Another way in which the application of the scientific method to the study of human nature showed itself was in the development of objective and standardized tests. The testing and measurement movement had a great rage in the 1920's and 1930's as a means of making education scientific. W. A. McCall early expressed this faith in science when he stated that, whatever exists at all, exists in some amount; anything that exists in amount can be measured; and measurement in education is, in general, the same as measurement in the physical sciences. The testing movement was applied to nearly all the school subjects in the form of achievement tests and was perhaps the most characteristic feature of scientific educational procedure in the 1920's.

Much reliance was also put upon intelligence testing and the measurement of the intelligence quotient (I.Q.). Terman developed and refined the Binet tests and made them suitable for American use in the Stanford

Revision, Thorndike and others helped to develop group tests of intelligence and aptitude for the army in the First World War, and vast use was made of group tests of all kinds in the Second World War. There was much discussion concerning the permanence of the I.Q., most psychologists maintaining that the native intelligence as measured by I.Q. tests is not affected significantly by differences of environment or education. It was assumed that intelligence tests measure inherited capacity and not achievement, but most tests relied upon some kind of acquired knowledge as evidence of original ability. Other psychologists in the 1930's began to question these assumptions, and the battles between the advocates of heredity and environment, between nature and nurture, became more severe.

At length, the studies at the University of Iowa reported by George D. Stoddard showed that identical twins put into different foster homes developed a wide range of ability as measured by intelligence tests. A long-term study reported by Irving Lorge at Teachers College, Columbia University, in 1945 showed that comparable pairs of students when tested 20 years after their school experience showed significantly different I.Q.'s as a result of longer or shorter educational experience. The longer a person continues in school and college, the conclusion was, the greater his ability as measured by intelligence tests. The battle was not over, but significant gains had been made by the environmentalists. All this debate seemed to the advocates of experimentalism to have stated the problem mistakenly, for they had long said that human behavior is a matter of interaction between the individual and his environment, neither of which can be neglected in the educative process.

The Appeal to Experimentalism

Reacting against the conservative and traditional points of view as well as the "positivistic" science of educational psychologists, the point of view known as experimentalism or experimental naturalism began to gain more and more adherents during the twentieth century. Experimentalism attempted to make philosophy conform more closely to the requirements of an age committed to machine technology, democracy, and science. Under the intellectual leadership of John Dewey, a new and progressive outlook for American education was formulated in different ways by such men as William H. Kilpatrick, Boyd H. Bode, George S. Counts, John L. Childs, R. Bruce Raup, Harold Rugg, Goodwin Watson, H. Gordon Hullfish, and V. T. Thayer. Drawing together the philosophic traditions of naturalism, empiricism, and pragmatism and new evidence from biology, anthropology, Gestalt psychology, and social psychology, experimentalism set out to devise a philosophy appropriate for twentieth-century American education.

The significant thing about the development of the progressive educational position was that it attempted to devise a theory of education that would adequately assimilate the new social and intellectual trends mentioned earlier in this chapter. It was apparent to the progressives that an adequate theory of education must take account of the best evidence that has been presented by modern natural science, social science, and psychology. Since the modern United States was moving toward an ever more interdependent status where democratic planning and cooperation were more necessary than ever before, it seemed logical that education must try to help students not only to understand but also to engage more effectively in solving the problems present in American society.

The other side of the progressive picture was a tremendous movement at all levels of education to give much more attention to the individual student and to his personal development than had been possible in the standardized school situation. The converse of the demand of democratic education was that the individual should not be lost in the masses of new students who filled the schools and colleges. Here it was that the new conceptions of science and psychology contributed to a changed conception of human nature and of individuality.

Human nature. In general, experimentalism denied the traditional distinctions or dualisms that divided man from nature, mind from body, individual from society, and knowledge from action. On the contrary, it interpreted the findings of science to mean that man is essentially a part of nature and, in common with other organisms, lives in constant interaction with his physical and social environment. On this basis, the individual is not something discrete and separate from society but develops his own unique individuality and personality as a result of his participation in and through the social situation. In other words, human nature was viewed, not as something fixed and eternal from all time, but as a mode of reaction developed in and through the surrounding culture. Differences in the culture of an individual produce such differences in the way people act and believe that we may not say that human nature is the same everywhere in spite of its surrounding social environment.

In other words, life was viewed as a continual interactive adjustment between an active environment and an active individual. Behavior arises when a condition of equilibrium between the individual and the environment has been upset, causing tension or disturbance in the individual, who seeks to restore the equilibrium by acting upon the environment. In this process, the individual is changed by his behavior, and the environment is also changed by his behavior.

Learning. Some of the implications for educational practice that arose out of this position and that are now beginning to affect the curriculum

may be stated briefly. From the point of view of the culture, it was apparent that education must stress much more the vital connection between the school and the culture of the surrounding community and larger society. The student must gain a much more genuine understanding of the problems of society, and therefore he must give much more time to the study of the culture. Studying must mean a far greater reliance upon the use of all kinds of materials and activities in order to see the relationship of one problem to other problems and to make preliminary efforts at solving the problems. Such solving must place more and more reliance upon the cooperation of students in carrying on social activities together and at arriving at group decisions based not so much upon authority or majority voting as on a genuine consensus reached through discussion and working together.

From the point of view of the individual, the implications of the experimentalist position were fully as far-reaching. The conception of *growth* in education resulted in a much greater respect for the individual student and for his development as a unique personality. Furthermore, the conception of the *active* character of experience proved to be very fruitful for educational theory and techniques. Since experience is the interaction of the individual and environment, then knowing and meaning arise only when there is an active response on the part of the learner. That learning is viewed as best which encourages the learner himself to take the initiative in planning, carrying out, and judging his own activities. Learning is best when students themselves have freedom to carry out those activities which seem to be in line with their own genuine purposes and interests. The test of learning thus becomes, not the ability to recite in class or write an examination, so much as the ability to act intelligently in subsequent experiences.

A third implication of the experimentalist approach was the conception of *wholeness*. The whole organism contributes to the responses that the individual makes; thus, learning becomes a matter of all that the student brings from a situation in physical, mental, and emotional attitudes as well as intellectual meanings. From the point of view of the individual, wholeness, or integration, of response is achieved when the individual makes effective adjustments within as he faces the situation without. If the learner faces effectually a sufficient variety of situations, he integrates himself as a personality; but when a number of such interactions are sufficiently inadequate to upset the normal balance of the individual, incipient maladjustments follow.

Because the individual interacts with his social environment, made up of other people, institutions, customs, beliefs, laws, and systems of ideology, education must more and more take account of all these factors

in order to promote most effectively the whole personal and social development of the individual.

Intelligence. In reaction against the traditional rationalism as well as the positivist outlooks of scientific psychology, the experimentalists laid stress upon a different conception of thinking and intelligence. Thinking was viewed not simply as a matter of the reason or of conditioned behavior but essentially as a matter of problem solving.

In his widely influential book *Democracy and Education*, published in 1916, Dewey emphasized the importance of science and of scientific method as central in the governing of human affairs of all kinds. In the scientific method, he found principles of procedure that gave him a clue to a conception of experience, knowledge, and thinking widely at variance with the notion of a separate faculty of intellect held by the conservatives. His theory closely associated knowledge and thinking with action and with the consequences of action; knowledge and action were definitely not separated into two antagonistic spheres, as in the intellectualistic doctrine. Truth, or true knowledge, is not merely the acquisition of eternal general principles but depends upon the verification of consequences. Ideas are not something separate from action but are tentative hypotheses or plans of action to be tested by their ability to make good through the consequences of acting upon them.

Dewey thus arrived at a description of thinking that rested upon the scientific method of problem solving. In other words, problem solving becomes *the* method of human *intelligence* in the conduct and control of human affairs. Mind is not a separate faculty for dealing with "ideas" but is the name given to human activities that approach experience intelligently with the intent to remake human experience and to accomplish real changes in events with the purpose of improving and enriching human life and enjoyment. Thinking as problem solving involves four steps: a sense of a disturbance, or *problem*, to be solved; *observation* of the conditions surrounding the problem; formulation of suggested *hypotheses*, or *plans of action*, with their possible consequences if acted upon; actual and active experimental *testing* to see if the hypotheses when acted upon give the desired consequences.

Then, basing educational method upon the process of thinking as outlined above, Dewey reached the following implications for education: The student must be in the center of genuine situations of experience and continuously engaged in activities in which he is interested when the *problem* confronts him as a genuine stimulus to thought. He must possess or obtain the proper information to make *observations* that are necessary for dealing with the problem. Suggested solutions, or *hypotheses*, must occur to him, and he must be responsible for developing them in an orderly way. Finally, he must have the opportunity and

the occasion to *test* his ideas by applying them in practice in order to make their meaning clear and to discover for himself their validity. Thus, educational method really consists in the method of thinking made conscious and realized in action.

Some experimentalists were not satisfied with this formulation of the thinking process and did not believe that the essentially fact-finding nature of the scientific method was appropriate to decisions that involve the guidance of conduct. In the Twenty-eighth Yearbook of the National Society of College Teachers of Education (1942), entitled *The Discipline of Practical Judgment in a Democratic Society*, Professor R. Bruce Raup and his associates outlined their suggestions for developing good decisions concerning what people *should* do in various kinds of situations. They argued that intelligence is not simply the scientific method of fact finding or simply what is measured by an intelligence test. Intelligence is a form of deliberative action that embraces wise decisions arrived at cooperatively and democratically in the light of facts and values to be served. Practical judgments, therefore, include simple decisions as to what to do, the formulation and carrying out of general policies with respect to action, and the reconstruction of underlying assumptions and normative principles concerning how people in general should act. Practical intelligence must include three phases, (1) the projection of a desired state of affairs or an ideal situation, (2) the survey of the existing relevant facts in the present situation, and (3) bringing together the ideal and the present status into a program of action that is carried from planning to execution. Direct attention to the development of practical intelligence in the schools and colleges is one of the most important ways in which educational methods proposed by certain of the experimentalists differed from the "mind training" of the intellectualists and the "scientific method" of the realists.

Social Role of the Arts and Sciences

Science and mathematics. Enriched by the coming to America of such notable scientists as Albert Einstein and other refugee scholars from Nazism and fascism, American science made rapid strides, absorbed the developments from Europe (see pages 545 to 550), and began further to branch out. The boundaries of mathematics and physics were broadened by the investigations and research of such men as the younger Josiah Willard Gibbs, Harold Urey, Robert A. Millikan, Arthur H. Compton, Ernest O. Lawrence, Enrico J. Fermi, Michael Pupin, Charles P. Steinmetz, and A. A. Michelson; of chemistry, by Edwin E. Slosson, Irving Langmuir, and Walter B. Cannon; of biology, by Thomas H. Morgan, Walter B. Cannon, Donald Culross Peattie, and Luther Bur-

bank; of medicine and surgery, by William Osler, Harvey Cushing, and Alexis Carrel; of astronomy, by Edwin Hubble and Harlow Shapley.

Even more impressive to average persons than the "pure research" was the development of new inventions and the technological applications of science, for these they could see. The development of the airplane from the Wright brothers' model early in the century to Lindbergh's solo flight across the Atlantic in 1927, and finally to the jet-propelled and rocket planes of 1945, took less than 50 years; many had seen the whole process in their lifetimes. Air conditioning, television, prefabricated houses, plastics, and synthetic rubber were close to the experience of millions and were soon to be demanded by millions more. On top of it all came the suggestions of harnessing atomic energy. Though the scientists differed in their estimates, they foretold the use of atomic energy for power purposes within 3 to 20 or 50 years.

Most scientists in the twentieth century had held to the doctrines of social neutrality and objectivity. They denied that scientists had any responsibility for the uses to which their "pure" research was put and defended the investigation of science apart from social implications as the only true approach to research. Abraham Flexner became a symbol of this outlook. The First World War left more people in doubt as to this retreat from social responsibility, and after the atomic bomb was dropped in the Second World War, the storm broke. Many of the atomic scientists themselves took the lead in demanding social control of scientific investigation through the United Nations Organization or a world government in order to prevent scientific competition that might lead to terrible destruction among nations. Some scientists even began to insist that science was not purely "objective"; that the scientist did not and could not approach his work with a mind entirely empty of assumptions and values; and that scientific knowledge must be sought, within the context of cultural forces and conditions, with awareness of its relationship to practice and conduct.

Engineers had seen this more clearly than "pure" scientists in their studies of technological applications of science to society, witness the Society of Industrial Engineers in their report on "technocracy," and Harold Loeb and the Brookings Institution in their reports on the potential capacity of production in America. The National Planning Board and the National Resources Planning Board saw the need to utilize science for public welfare. By 1945 it was clear to all what strides could be made when scientists worked cooperatively on a project of urgent national concern, as on the government's atomic program known as the Manhattan Project. A cooperative and coordinated program in research could achieve in three or four years what it might take individual scientists in universities and private foundations many times longer to do.

Some began to wonder what might be achieved in peacetime pursuits under similar conditions.

In December, 1945, some 200 leading scientists issued a statement released by the Committee for a National Science Foundation formed at the invitation of Harold Urey of Columbia and Harlow Shapley of Harvard. This statement urged that federal funds be allocated to scientific research under government auspices and insisted that the magnitude of scientific research necessary for public welfare was so great that public funds should supplement private research. The trend was away from the separation of knowledge and action as preached by conservative philosophies; the trend was toward a close relation between knowledge and action as urged by the experimentalists.

Social sciences. One of the most significant developments in American scholarship in the twentieth century was the increased attention given to the social sciences by a large number of scholars and writers. The whole range of social outlooks was represented in their writings, from the most conservative political and economic points of view to reformist and socialist doctrines. The trend was toward an increasingly realistic description of American institutions and how they worked, toward the relating of political, economic, and social forces to American culture and the welfare of the people. Despite the assumptions of many that social science must be just as scientific as the physical and natural sciences and not take sides in social affairs, an increasing number of social scientists began to realize that interpretation of what they described was a legitimate and even primary function of their task. Whatever interpretations they made were based ultimately upon the social values they held and upon the kind of social relationships they felt to be desirable in American life.

Among historians the following broke new ground or made notable interpretations: Frederick Jackson Turner, James Harvey Robinson, Carl Becker, Arthur M. Schlesinger, Charles A. Beard, James T. Shotwell, Harold U. Faulkner, Preserved Smith, Vernon L. Parrington, Merle Curti, Lynn Thorndike, Allan Nevins, Carl Russell Fish, T. J. Wertenbaker, Charles M. Andrews, John D. Hicks, Frederick L. Paxson, Dixon Ryan Fox, Samuel Eliot Morison, Carl Wittke, W. E. B. DuBois, H. S. Commager, Curtis P. Nettles, James Truslow Adams, and Douglas S. Freeman.

Prominent economists included Thorstein Veblen, Wesley C. Mitchell, John R. Commons, Selig Perlman, Paul H. Douglas, E. R. A. Seligman, Adolph Berle, Gardiner Means, John A. Ryan, Herbert Agar, Max Lerner, Sidney Hook, Louis Hacker, Jerome Davis, Stuart Chase, and Thurman Arnold. Writers on government, political science, and law included Charles E. Merriam, Charles A. Beard, Walter Lippmann, Harold

D. Lasswell, John M. Gaus, Herbert Schneider, T. V. Smith, Roscoe Pound, Benjamin Cardozo, and Felix Frankfurter.

In sociology and social psychology there were such men as William Graham Sumner, E. A. Ross, Leonard T. Hobhouse, Franklin H. Giddings, Charles H. Cooley, Charles A. Ellwood, Robert M. McIver, Robert and Helen Lynd, William F. Ogburn, Howard Odum, William McDougall, Kimball Young, John Dollard, Lloyd Warner, and Allison Davis. Anthropology increased in "respectability" in the hands of such writers as Franz Boas, Henry Fairfield Osborn, Ralph Linton, Ruth Benedict, and Margaret Mead. Well-known philosophers included John Dewey, Josiah Royce, George Santayana, Irwin Edman, Morris Cohen, William E. Hocking, George Herbert Mead, Max Otto, and T. V. Smith.

Joint enterprises and cooperative efforts of social scientists resulted in the monumental and extremely important volumes of the *Encyclopedia of the Social Sciences*, edited by E. R. A. Seligman and Alvin Johnson, and the *Dictionary of American Biography*. The Social Science Research Council formed after the First World War took the lead in the effort to coordinate research in the field, and the American Historical Association promoted several cooperative studies, the most important of which for education was the analysis and interpretation of its Commission on the Social Studies in the Schools. The New Deal did much to enlist economists, sociologists, and government experts from colleges and universities as consultants and planners. It thus brought forth the jeers of opponents concerning the "Brain Trust," but the conservatives moved to enlist like support on their side. The National Association of Manufacturers, the Chamber of Commerce, and the Republican party had scholars studying, writing, and speaking on their behalf.

Before the First World War and the great depression, most social scientists were confident that the basic structure of American society was sound, but the early 1930's saw a tremendous resurgence of interest among the social scientists as they tried to find reasons for the economic collapse and as they indicated the desirable directions in which the United States should move. More and more social scientists began to believe that the United States must move toward social reform more or less rapidly and that social knowledge is useful as a guide in social planning and social action.

Language arts and literature. American literature came into its own in the twentieth century, breaking away at last from its too complete reliance upon Europe. Romance, history, or sex furnished the material for much writing, but realistic descriptions of social conditions surrounding all classes began to play a larger role and ranged from cynical factualism to vigorous and earnest social reformism. These topics were represented in the novels of such men as Henry James, William Dean

Howells, Jack London, Upton Sinclair, Theodore Dreiser, Sinclair Lewis, Ernest Hemingway, John Dos Passos, William Faulkner, James T. Farrell, Thomas Wolfe, T. S. Stribling, Stark Young, Kenneth Roberts, F. Scott Fitzgerald, Hervey Allen, John Steinbeck, Erskine Caldwell, Thornton Wilder, and John Chamberlain.

The rise in the status of women was revealed nowhere more markedly than in the work of such notable woman authors as Edith Wharton, Willa Cather, Pearl Buck, Ruth Suckow, Ellen Glasgow, Margaret Mitchell, Gertrude Atherton, and Marjorie Kinnan Rawlings. The short story became a widespread and popular form of literature as witnessed by the works of William Saroyan, Vincent Sheean, Erskine Caldwell, James T. Farrell, William Faulkner, Wallace Stegner, Dorothy Canfield Fisher, and Booth Tarkington. Poetry was represented by such poets as Carl Sandburg, Vachel Lindsay, Edgar Lee Masters, Robert Frost, Robinson Jeffers, William Ellery Leonard, Hart Crane, Edna St. Vincent Millay, Elinor Wylie, Willa Cather, Allen Tate, Mark Van Doren, Stephen Vincent Benét, Langston Hughes, and Archibald MacLeish.

American humorists revealed one of the soundest American traits, sense of humor, as in the widely varied writings of such men as Will Rogers, Ring Lardner, Don Marquis, James Thurber, Milt Gross, Ogden Nash, Wolcott Gibbs, Robert Benchley, and Clarence Day. An almost unique form of writing, which some would scarcely call literature, but of pronounced influence, was produced by the newspaper columnists, such as O. O. McIntyre, Arthur Brisbane, Walter Lippmann, Dorothy Thompson, Heywood Broun, Eleanor Roosevelt, Drew Pearson, Robert S. Allen, and Westbrook Pegler. Some were reactionary, some liberal, and most were conservative in outlook.

Perhaps more widely read than any other form of publication were the "comic" books, the "pulp" magazines like *True Story* and *True Confessions*, and the sports writers in the large dailies. Americans were probably more likely to be magazine readers than any other people, and millions of copies were sold each week or each month. Magazines ranged from the short-story weeklies, news digests, illustrated weeklies, and periodicals of social opinion and humor to the "high-class" literary magazines. A few of the better known were *Saturday Evening Post*, *Collier's*, *Ladies' Home Journal*, *American Magazine*, *Liberty*, *Time*, *Life*, *Look*, *Reader's Digest*, *Literary Digest*, *Newsweek*, *New Yorker*, *Nation*, *New Republic*, *Atlantic Monthly*, *Harper's*, *Survey Graphic*, *National Geographic*, *Fortune*, *Yale Review*, *Southern Review*, and *Virginia Quarterly*. Dozens of others filled the newsstands and libraries each week and month.

To sift even the "better" output of books the larger newspapers ran book-review sections, as in the *New York Times* and *New York Herald Tribune*. The *Saturday Review of Literature* maintained a superior quality of book reviewing, and many magazines added to the output of literary criticism. The critic became a well-known figure in the literary world, as in the case of such persons as Henry Seidel Canby, Oswald Garrison Villard, Van Wyck Brooks, Malcolm Cowley, Edmund Wilson, and Granville Hicks. H. L. Mencken was one of the most biting of the critics and gained further attention by his well-known studies of the "American" language.

Scholars of language became interested in the role of language in communication. "Semantics" became a byword for those who emphasized that the meanings of words are not fixed and stable but take on different meanings in relation to the situation or context in which they are used. I. A. Richards, C. K. Ogden, and Kenneth Burke among others pointed out this relational characteristic of language and word meanings. The American language and American letters began to drop their exclusive allegiance to the Great Tradition and to reflect the trends toward social reform and experimentalism.

Art and music. American art and music in the twentieth century also began to break away from traditional forms and traditional themes and give expression to a new spirit reflecting the social trends of the times. "Form should follow function" became the byword for those who tried to give a more realistic and more liberal expression in art forms to the new life of the times. In general, the effort was made to make the fine arts more functional and to ensure better design in the practical arts. Individual expression, social satire, and social reform were represented variously in the dramatic works of Eugene O'Neill, Maxwell Anderson, Clifford Odets, Marc Connelly, Elmer Rice, Rachel Crothers, Sidney Howard, Robert E. Sherwood, Paul Green, George S. Kaufman, and Moss Hart. The social aspects of the drama were reflected in various cooperative ventures such as the Theater Union, the Federal Theater Project, the Mercury Theater, the Group Theater, and the Playwrights' Company. Stage design kept pace in the work of Lee Simonson and others.

Modern architecture continued along the lines of development laid out by Louis Sullivan, Frank Lloyd Wright, Walter Gropius, and Eliel Saarinen. Despite the controversies over the architectural designs of Radio City, the Chicago World's Fair of 1933, and the New York World's Fair of 1939 to 1940, it was clear that modern design was gaining headway against tradition in office buildings, private homes, and public housing. American painters began to break away from the traditionalism of John Singer Sargent and tried to express the American

"folk" spirit of individualistic outlooks, as in the works of such artists as Grant Wood, Thomas Benton, John Steuart Curry, Eugene Savage, Boardman Robinson, Henry Varnum Poor, and Georgia O'Keeffe. Photography became a recognized art form in the hands of Alfred Stieglitz, Margaret Bourke-White, and Russell Lee. Sculpture departed less from the traditional in the work of Paul Manship, Augustus Saint-Gaudens, and Daniel Chester French.

American music also began to break away in greater or lesser degree from European models in the compositions of Henry Hadley, Ernest Bloch, Howard Hanson, Deems Taylor, John Alden Carpenter, Daniel Gregory Mason, and Henry F. Gilbert. More thoroughly American and modern was the work of Aaron Copland, Marc Blitzstein, George Gershwin, Louis Gruenberg, Charles Ives, Roger Sessions, Randall Thompson, Roy Harris, and Werner Janssen. The influence of Negro rhythms and tempo was, of course, very strong in the development of "good" American music as well as in "jazz" syncopation.

Symphony music had a notable revival among the large orchestras in the country under the leadership of such men as Walter Damrosch, Arturo Toscanini, Sergei Koussevitsky, and others. The dance was outstanding in its new interpretations and its break with the models of the traditional ballets of Europe through the influence of such persons as George Balanchine, Isadora Duncan, Tamiris, Ruth St. Denis, Ted Shawn, Martha Graham, Hanya Holm, Doris Humphrey, Charles Weidman, and Anna Sokolow. Opera remained largely in the traditional patterns, but "light opera" and operetta began to look to American life for its inspiration as, for example, in such different expressions as *Porgy and Bess* and *Oklahoma*.

One of the most important ways in which American art was brought closer to the people grew out of the emergency measures of the New Deal during the depression. Designed originally to give relief to unemployed writers, artists, actors, and musicians, the project was so carefully planned and carried out that it showed what widespread benefits could be gained for popular taste and enjoyment. The Federal Arts Project was organized in 1935 under the Works Progress Administration. The entire project was headed first by Jacob Baker and later by Ellen S. Woodward; its divisions included the Federal Art Project headed by Holger Cahill, the Federal Music Project headed by Nicolai Sokoloff, the Federal Theater Project under the direction of Hallie Flanagan, and the Federal Writers' Project headed by Henry Alsberg.

Not only were hundreds of persons given employment but thousands more all over the country attended classes in all the arts and listened to concerts and saw plays at low prices. American folk art was catalogued in the *Index of American Design*, indigenous American music was

stimulated in all parts of the country, American folklore was collected, and extremely valuable guides to American states, rivers, and national resources were written. To be sure, all the creative work was not of the highest caliber, but Americans for the first time gained a sense of what federal patronage of the arts could mean by bringing the arts close to the people. It was a great experiment in the education of the American public. It led many to wonder whether private patronage of the arts had not gone too far in widening the gap between the public and the artist. Some began to wonder if the social role of the arts and sciences would not be greatly improved if sponsorship of the arts were patterned somewhat along the lines of education, in which public and private sponsorship exist side by side.

CHAPTER XXII

EDUCATION IN TWENTIETH-CENTURY AMERICA

The conflicts in American culture in the twentieth century were reflected in controversies concerning the organization, aims, and curriculum of American education. The trends toward political, economic, and social reform found repercussions in education, and resistance to social change had its counterpart in resistance to educational change. Consequently, education lagged behind social change in many respects, but the trends were unmistakable. The newer philosophies and psychologies made pronounced changes in the aims and curriculum at the various levels of education, perhaps most apparent in preelementary and elementary education, less apparent in secondary education, and least apparent in higher education.

ORGANIZATION AND CONTROL OF EDUCATIONAL INSTITUTIONS Equalizing Educational Opportunity

One of the most important issues facing educational administration in the last 50 years has been the problem of providing more equal educational opportunity for all American children and youth. The rapid growth of attendance did not blind careful students to the fact that enormous inequalities continued to exist in the quality and amount of education available to various groups in the population. The more industrialized and therefore richer states could spend more on education and thus provide better opportunities. In 1940, for example, the average expenditure per pupil in the whole country was something over \$80; but nine Southern states spent less than \$50 per pupil, and eight other states spent more than \$100 per pupil. Mississippi spent only \$25 per pupil, less than one-third of the nation's average and less than one-fifth spent by New York State.

It was clear, too, that within the states, the urban and industrial areas were more advantageously situated than the rural and farming regions. So long as local units provided the bulk of school support, those units with greater population and greater wealth could spend more money on schools and provide better schools. Likewise, great inequalities were apparent in the provision of educational opportunities for Negro children

as compared with white children; in the Southern states the average expenditure per Negro child was about one-fourth to one-third what it was for each white child and about one-eighth of the average expenditure of the whole country. Thus, in general, the inequality was enormous, either because some communities simply did not have enough money to provide decent education or because they did not wish to spend equal amounts for certain parts of the population, or both.

Attempts to equalize these discrepancies took several forms. Within the states, equalization funds were set up to distribute state aid to the local communities on a basis that would help the poorer districts. Under the general principle that the entire wealth of the state should be tapped to serve the entire population of the state, various kinds of formulas were developed to give state aid to communities on the basis of their need and ability to raise funds for schools, the number of children to be educated, and their willingness to tax themselves as fully as possible for the support of schools. Many states raised funds by state income taxes and by other taxes in order to give aid to those communities which could not meet their needs unaided.

Likewise, many states set out to consolidate local rural school districts into larger units in order to provide more efficient schools at less cost. By pooling their resources on a county basis, local districts could provide fewer but better schools, served by school buses and manned by better paid and better trained teachers. The consolidation movement met vigorous opposition from many enthusiasts for local and decentralized control, who feared that the county or state would usurp their rights, but the trend toward consolidation continued despite opposition.

Inequalities for Negroes were not attacked so vigorously at the state level because of the resistance of state legislatures that felt the pressures of certain elements in their constituencies. Much of the effort to improve Negro schools came from private foundations such as the General Education Board, Peabody Fund, John B. Slater Fund, the Jeannes Fund, and the Julius Rosenwald Fund. Even those Southern states which developed a desire to improve Negro education found themselves handicapped by lack of funds to match their desires.

Despite the gains made in equalizing educational opportunity by county, state, and private agencies, it rapidly became clearer, especially during the depression of the early 1930's, that genuine equality could not be achieved for all American children unless the federal government entered the field of school support in a substantial way. The pressure for federal aid to education increased from many quarters, and a series of federal-aid bills were introduced into Congress. However, up to the end of 1946 no federal-aid bill had been passed for the support of general education in America. More and more educators were coming

to realize the need for federal funds, but many continued to be afraid of federal control.

The centralizing forces that were evident in political and economic realms were especially feared in educational matters. Many opposed federal support because they felt that control should remain in the hands of the states and were convinced that federal control would inevitably follow federal support. Others favored federal support with safeguards against federal control and therefore opposed certain bills that were introduced because they did not like the specific provisions involved. Southern states and southern congressmen opposed several bills because of their provisions for equal distribution of funds to Negro and other minority groups. Others opposed some bills because they would give federal aid to private schools as well as to public schools; Roman Catholic groups favored such bills but opposed any federal-aid bill that ruled out support for private and parochial schools. With all these groups pulling and hauling in different directions, the problem remained unsolved, but the pressures remained.

Perhaps the most definitive policy statement on the problem was made in 1945 in a pamphlet entitled *Federal-State Relations in Education*, prepared jointly by the Educational Policies Commission of the National Education Association and the Problems and Policies Committee of the American Council on Education. These groups deplored the centralizing trends of the federal government and its tendency to control education, but they insisted that the federal government must participate in the support of education. They disapproved of the Civilian Conservation Corps (CCC), National Youth Administration (NYA), and Serviceman's Readjustment Act (commonly called the G.I. Bill of Rights) for veterans as permanent agencies of the federal government, but they noted that Congress had responded to emergency situations when the states did not.

The principles proposed were that the predominant control of education should remain at state and local levels but that the federal government should continue to exercise, within properly defined limitations, certain educational functions. The federal government should provide financial assistance to the states on the basis of school populations and wealth of the states. It should deal with the established state agencies to which it should give the money and should have only the right to audit and report how the money was used. The federal government should also exercise leadership of a stimulating but noncoercive character in the form of investigations, research, conferences, and publications. Federal control of education should be limited to certain special undertakings like the Military and Naval Academies. These views probably represented the majority opinion of American educators.

Federal Participation in Education

The trend toward federal support of education that began in the nineteenth century was accelerated in the twentieth century, but it was on a piecemeal basis rather than as a carefully planned and integrated service. Congress saw a special need or responded to special demands and thereupon made provisions for special educational aids. Only a few of the outstanding developments can be mentioned here. In 1914 the Smith-Lever Act provided for agricultural extension services to disseminate useful knowledge relating to farm methods and home economics throughout the rural areas of the nation. County agricultural agents were authorized to work with farmers and housewives to improve their practices and raise the levels of farm life. Lectures, meetings, conferences, classes, publications, and demonstrations were provided by federal funds, to be matched dollar for dollar by those states which accepted the provisions of the act.

In 1917 the Smith-Hughes Act provided vocational instruction in secondary schools for agricultural, home-economics, trade, and industrial subjects. A Federal Board of Vocational Education and state boards were set up to administer the federal funds, which were to be matched dollar for dollar by the states. The money was to be used to pay the salaries of agricultural teachers in the proportion that the rural population of a state bore to the total rural population of the nation; to pay salaries of home-economics, trade, and industrial-arts teachers in the proportion that the state's urban population bore to the total urban population of the nation; to help states prepare teachers in these subjects in the proportion that the state's population bore to the total population of the United States; and to conduct research in the various fields. In 1929 the appropriations for vocational education were increased by the George-Reed Act, and in 1936 the George-Deen Act extended federal aid to instruction in the distributive or selling occupations in secondary schools. Vocational rehabilitation of handicapped persons also received federal aid through the Vocational Rehabilitation Act of 1920 and the Social Security Act of 1935.

An enormous impetus was given to federal support of specialized educational needs during the depression years by the New Deal. The Civilian Conservation Corps was established in 1933 to give relief, employment, and vocational training for unemployed youths. An educational and work program was devised for the various camps in which the young men helped to conserve and develop the national parks, forests, and other resources. The National Youth Administration was established in 1935 to provide work for unemployed youth, lend aid in finding jobs, give vocational training, and provide financial aid to attend

school or college. Despite their great utility in preparing warworkers, the CCC and the NYA drew increasing criticism in 1942 and 1943 until they were finally closed entirely. The Works Project Administration (WPA) provided money for work-relief payments for unemployed teachers and for an extensive educational program of nursery schools, vocational training and rehabilitation, workers' education, adult education, and national citizenship education for foreign-born residents of the United States. The Public Works Administration (PWA) provided extensive grants and loans to communities and states for the construction of school buildings. In these and many other ways, education shared in the federal government's attempts to meet the emergency economic situation.

With the deterioration of the international situation in the late 1930's the federal government began to sponsor educational measures of national defense. In 1938 the Civil Aeronautics Authority (CAA) sponsored programs for the training of pilots, and in 1940 large federal funds began to be distributed through the United States Office of Education for the training of defense workers in schools and colleges. In 5 years the war-training program gave vocational preparation to some 12,000,000 persons at a cost of \$500,000,000. Some 8,000,000 were trained in 2,500 secondary schools, another 1,500,000 in 238 colleges and universities, and another 2,500,000 in 15,000 farm communities. The most popular courses were on aviation and automotive services, radio and electricity, machine shops, shipbuilding, and welding.

With the tapering off of the civilian war-training program in 1945, the government's program for educational benefits to veterans swung into high gear. The Serviceman's Readjustment Act of 1944 provided returning servicemen and -women with \$500 for tuition and supplies for an academic year of study in school or college. Each veteran with 3 months' service was entitled to a year's education, plus a length of time equal to his period of service, up to a maximum of 4 years. In addition to tuition and fees the veteran student was eligible for a subsistence of \$50 a month if single and \$75 a month if he had dependents. With the rather sudden end of the war in 1945, thousands of veterans began to flood schools and colleges to take advantage of these benefits. In December, 1945, the subsistence allowances were raised to \$65 and \$90 a month. Disabled veterans were entitled to other benefits and somewhat larger subsistence amounts.

In 1939 the United States Office of Education was transferred from the Department of the Interior to the newly organized Federal Security Agency along with the Public Health Service, Social Security Board, NYA, CCC, and other agencies. From the 1920's on, there had been a movement to establish a federal department of education with a member

of the president's cabinet as head, but this had not been realized. If, however, Congress ever passed a bill for annual federal grants for general education and distributed the funds through the Office of Education, this would enhance the power and prestige of the office considerably. In any case, its functions had been multiplied, and Commissioner John W. Studebaker proposed a reorganization to make it more efficient and serviceable to American education.

The centralizing tendencies were under way, but the United States Office of Education gave no indication that it was desirous of extending its control over the educational affairs of the states. More and more educators were willing to try the experiment of an integrated and planned support of education by the federal government, but without federal control. The usual pattern had been to assign educational functions to the various branches of the government until each of the dozens of regular and emergency agencies had its own educational services. This led many educators to suggest that the United States Office of Education should be expanded and reconstituted in order to provide coordination and leadership commensurate to the task facing American education in the years to come.

It seemed clear, however, that the Office of Education would not speak authoritatively for American education in international affairs. On July 30, 1946, President Truman signed a joint congressional resolution making the United States officially a participating member of UNESCO. The resolution also provided for the establishment of a National Commission on Educational, Scientific and Cultural Cooperation to consist of 100 members. The State Department appointed 40 members and asked 50 organizations to appoint one member each; these 90 then appointed 10 more members at their first meeting in September, 1946. The designated organizations included not only professional education but also the sciences, arts, business, labor, and the press, radio, and movie industries. It was possible that American education would finally achieve through the cooperative effort of governmental and nongovernmental agencies a more unified voice in national as well as international educational affairs.

Although probably not destined to be realized in full, the proposals of the National Resources Planning Board (NRPB) in 1943 urged that the total annual outlay for education during the postwar period should be increased to more than double what it was in 1940. Estimating that some 2,800 million dollars were spent in 1940, the NRPB proposed that 6 billion dollars be spent each year if the United States was to realize the kind of educational program necessary for a democratic nation. This would mean that expenditures for preschool, elementary, and secondary education should be raised from 2 to 3 billion dollars; expenditures for junior colleges from 26 to 400 million dollars; for colleges, uni-

versities, and technical schools from 460 million to 1 billion dollars; for adult education from 57 to 300 million dollars; for student aid from 66 to 300 million dollars; and for public libraries from 50 to 200 million dollars. Similar increases in the 5-year period after the war in capital outlays for buildings and equipment should be increased from 382 million to more than 2 billion dollars.

It was pointed out that most of these funds would have to come from federal sources. Although these plans were not likely to be realized, they pointed the way to what was needed. War production had shown what the United States was willing to pay for purposes which it considered to be of sufficient importance. The problem was to convince the American legislators and public that education for peace and security was as important to the national welfare as winning the war.

Trends in Administration and Control

Public versus private control. The question of the respective role of church and state in American education continued to be a troublesome one in the twentieth century. The right of the state to support all levels of education from preschool to adult education was no longer questioned. Compulsory-school-attendance laws of some kind had been passed in all states by 1918, even though they varied in the length of time and the age limits within which attendance was required. All states had organized state departments or state boards of education, and the legal authority of state legislatures was fully established. However, the question of the rights of the state with regard to private and parochial schools was unsettled until an important judicial decision in the early 1920's.

The Oregon legislature passed a law in 1922 requiring every child in Oregon to attend a public school between the ages of eight and eighteen. This struck at the heart of the parochial and private school systems, but in 1925 the United States Supreme Court ruled the law unconstitutional. The court declared that the child was a creature of the parents rather than of the state and that therefore the parents had the inherent right to educate their child by sending him to any school they deemed best for his welfare. Furthermore, the court ruled that the state had no right to destroy the value of the property of the private schools without due process of law. The court reaffirmed the right of the state to require all children to be educated, but not to specify that they must attend a public school in order to acquire that education. It also reaffirmed the right of the state to supervise and inspect all schools, private, parochial, and public, in order to see that they meet the minimum requirements for education in a democracy. Thus, the right of private and religious schools to exist alongside the public schools was guaran-

teed, and something like 10 per cent of American children continued to attend private schools.

The religious question, however, continued to plague educators. Roman Catholic groups continued their efforts to gain a share of public funds on the grounds that their schools relieved taxpayers of a considerable burden and that Roman Catholic parents had to pay taxes for public schools as well as support their religious schools. Likewise, some elements in all religious groups urged that provision be made for religious instruction in the public schools. Various proposals and many different practices marked the problem of religious instruction. In general, four different attitudes were expressed.

1. The Roman Catholic position was that ideally all education should be religious education controlled by the church, but it recognized that this was not applicable to non-Roman Catholic children and that the state would continue to control a large part of education.

2. Many Protestants and Jews preferred a complete divorce of secular and religious instruction, making the state schools completely secular and reserving religious instruction to the churches. They maintained that complete separation of church and state was the only truly democratic arrangement in a nation with so many divergent religious groups.

3. Many Protestant groups favored nonsectarian religious instruction in the public schools, along with secular instruction. They argued that the common basis of so much of American culture was Christian in its origins that these common religious teachings could form the basis of nonsectarian religious instruction. Most often this would take the form of reading the Bible in schools. Jews and Roman Catholics often opposed this practice on the grounds that the Bible used was a Protestant Bible and therefore sectarian in their eyes. A wide variety of practice had developed by the late 1930's. In 1937, 12 states required by law the reading of the Bible in schools; 6 states specifically permitted by law the reading of the Bible if local schools desired it; in 18 states the law was silent but permission to read the Bible was implied; and in 12 states the reading of the Bible was not permitted by court interpretation. Few state legislatures have specifically prohibited its reading by law.

4. In recent years a fourth proposal gained adherents among all religious groups, namely, the provision of weekday released time or dismissal time from public schools in order to give parents the opportunity to have their children receive religious instruction in their preferred faith by approved instructors either in the schools or in the churches. Protestants and Roman Catholics were most in favor of released time, by which certain hours were set aside during the week to allow children to leave their regular classes and attend religious classes. Considerable opposition developed, however, on the ground that released time vio-

lated the principle of separation of church and state, discriminated against those children whose parents did not wish them to have religious instruction, and caused such children to feel at a disadvantage when the others left their regular classes. The best estimate was that some 1,800 communities had adopted some form of released time and only two states (New Hampshire and North Dakota) did not have enabling legislation, court decisions, or attorney-general opinions permitting such practice.

Many Jewish leaders preferred dismissal time, in which all children were dismissed from school so that they could attend or not attend religious classes with no feeling of stigma attached to those who did not do so. Dismissal time, however, did not prove as popular as released time. It should be noted that there were divisions of opinion within all religious groups as to the advisability of these various plans, and therefore the controversy continued to rock many communities when the proposals were made. Many educators maintained that the best way to serve American democracy and to prevent the European experience with religious instruction in public schools was to keep the two as separate as possible.

Democratic administration of schools. From the 1920's onward, it became increasingly clear to some educators that the theory of public control of education through a lay board of education was not working out in practice to the best interests of all the people. Studies showed that school boards appointed by mayors and even school boards elected by the people were not representative of a cross section of the population. School boards were composed in greatest numbers of professional men (physicians, lawyers, and clergymen) and businessmen, representing the upper-middle and wealthier classes in the communities. Some gains were made in the 1930's and 1940's as representatives of organized labor and minority groups began to become members of school boards, and their composition thus became more representative of the total population.

Another trend toward more democratic administration of education began to appear when teachers in some school systems began to gain some voice in the making of school policies, a development that took place largely after 1930. The inherited administrative arrangements of the nineteenth century were highly centralized and authoritarian as schools adopted the business and industrial methods of "efficiency" in running the school system. Gradually, many educators began to argue that educational institutions were not analogous to industrial or military establishments. If teachers were to develop democratically minded students, the teachers themselves must develop democratic habits by taking part in decisions that concerned them. Most school administrators met

the idea with cool indifference or active hostility, but some began to put it to the test.

In Shaker Heights, Ohio, for example, a staff council was formed to take full responsibility for the formulation of those school policies which the school board normally handed over to the superintendent of schools. The superintendent agreed to be bound by the decisions of the staff council, composed of 48 members. Fifteen members were administrative officers, including the superintendent; and 33 were teachers. Superintendent Arthur K. Loomis reported that the participation of the teaching staff in the formulation of policies had improved the morale of the staff and had resulted in better and wiser decisions than would have otherwise been possible. The mistake was not made of confusing policy making with executive authority. The province of the staff council was to make decisions of policy and then delegate to the proper administrative officers full authority to act and carry out the decisions.

The movement for democratic administration gained slowly, but it seemed to be in line with the best outlook that began to permeate curriculum building, supervisory practices, and instructional practices. As administrators and teachers alike learned to work cooperatively in the educational enterprise, the best interests of all concerned were increasingly being served. Some schools even began to give a voice to students, parents, and members of the community in matters of concern to them. The idea of a "community school" closely related to the needs and welfare of the surrounding community gained wider attention in the middle decades of the century.

Pressures upon the schools. The value of a cooperative and unified professional staff including both administrators and teachers was borne in upon an increasing number of educators as they faced the growing pressures upon the schools from various sources. Wise administrators soon learned that their position was much stronger when authority flowed in two directions than when all decisions rested in their hands or with the board of education alone. Strong economy drives were instituted during the depression to force retrenchment of school budgets. Taxpayers' alliances and groups of all kinds brought pressures to bear to cut school budgets. Administrators found that a cooperative effort of the whole staff in making budget decisions, in publicizing the educational and social values of the school program, and taking leadership in the community brought greater returns than when administrators faced the demands alone.

Patriotic and veterans' organizations demanded flag salutes, loyalty oaths for teachers, and an emphasis on patriotism. Religious organizations demanded religious instruction in public schools or the exclusion of instruction on sex, evolution, or other matters. Legislatures passed

laws requiring the teaching of American history or the prohibition of the teaching of the German language. In these and many other ways, special-interest groups besieged the schools to serve their interests. A wishy-washy stand by the schools simply meant that the group with the most power could sway the legislature, the board of education, or the superintendent. A well-thought-out program of public education effectively presented to the public could do much to help educators stand out against ill-advised pressures.

Wise educators marshaled organizations favoring good education in the community and their own professional staff to formulate good educational policies and defend them before the public. It seemed clear that the profession could not and should not isolate itself from the community but rather should take into account a larger proportion of the community when it made its decisions. It was desirable to meet the community needs, but it was dangerous to define the community simply in terms of the most vociferous or well-organized minorities in the community. That school system was strongest which had developed a continuous and cooperative program of communication and conference with forward-looking and democratically minded groups in the community.

Changes in Organization

The structure or, rather, structures of the American school system went through many modifications in the first half of the twentieth century in response to increased enrollments, community demands upon the schools, and the constantly changing plans of educators to meet new needs. The organization of educational institutions varied from state to state and with different localities in many states. This variation imparted flexibility and the ability to adapt to different conditions, but it also meant the weakness of an unequal quality and quantity of education provided in different parts of the country. The general trend, however, was to extend the amount of education under public auspices to the lower and higher age levels. At the opening of the twentieth century the most common form of organization was an 8-year elementary school, a 4-year high school, and a 4-year college, with some kindergartens provided below the elementary school and professional, technical, and graduate schools beyond the college. During the first decades of the twentieth century, certain significant changes took place that extended and expanded this organization.

Preelementary education. By the middle of the century it had become clear that public responsibility for education was being extended to include nursery schools for two- and three-year-old children and kindergartens for four- and five-year-olds. The nursery school movement was rather slow in developing until the depression years of the 1930's, when

federally supported nursery schools were inaugurated by the WPA of the New Deal. By 1939, some 300,000 children had been enrolled in 1,500 emergency nursery schools, most of which were housed in public school buildings. Forward-looking educators urged that the emergency pattern of nursery schools, maternity care, and parent education, stimulated by the depression and war program, should become a permanent part of public education. This trend was recommended by the White House Conference on Children in a Democracy in 1940 and by the NRPB in 1943.

The kindergarten had been developed in the nineteenth century to provide educational facilities for children younger than the normal school-beginning age of six. By 1940, some 625,000 children were enrolled in public kindergartens and another 40,000 in private kindergartens. As might be expected, most of these were in urban centers. Both the nursery school and the kindergarten were in large part a response to the urban and industrial character of twentieth-century life, in which a higher percentage of mothers began to transfer some of their energies from child care to business and industry. These institutions were justified even more urgently, however, on the grounds that young children needed the social activity of group life and the guidance in mental, moral, and emotional development that could be provided by trained teachers to supplement the training provided by the home. Indeed, such teachers could help to improve the quality of home life itself by working with parents to improve their knowledge and insight into child development and child care. Early childhood education and parent education had become an important frontier for educational workers.

Elementary education. As already noted, the dominant type of elementary school in 1900 was an 8-year school in which children normally started at the age of six and graduated at the age of fourteen. Even this pattern varied, however, for many Southern states had 7-year elementary schools, and many New England states had 9-year elementary schools. Criticism of this arrangement began to be heard increasingly from 1910 on, and the idea of a junior high school began to spread after its beginnings in California and Ohio. It was argued that the growth patterns of adolescent children of thirteen, fourteen, and fifteen years of age required special attention as a means of transition from elementary to secondary education.

Thus the junior high school, designed as a separate institution to include the seventh, eighth, and ninth grades, began to gain in popularity. This development came to mean a 6-year elementary school, a 3-year junior high school, and a 3-year senior high school, often known as the 6-3-3 plan. The junior high school never became very popular in rural sections, where the shortage of teachers and fewer children meant that

the dominant pattern remained an 8-year or 7-year elementary school. Where consolidated rural schools became common, the junior high school was more popular.

The decades of the 1920's and 1930's saw such a rapid development of the junior high school that it is difficult to say whether elementary schools included six grades or eight grades. The general opinion seemed to be that the elementary school should be a 6-year school, but many educators were less concerned about the grades to be included than in seeing that children received an education appropriate to their stage of development in a unitary and integrated plan of education. One item of major concern was that the elementary school enrollment, which increased from 16,000,000 to nearly 24,000,000 between 1900 and 1930, began to decline steadily during the 1930's, until it went below 20,000,000 in 1938. The decline in the birth rate and restriction of immigration were largely responsible. Despite a slight increase in the war years the chances were that elementary school enrollment would be fairly stable in the postwar years.

Secondary education. The organizational definition of secondary education was even more difficult to determine. In 1900 it was more simple, for secondary education generally referred to the 4 years of high school that stood between the 8-year elementary school and the 4-year college. With the growth of the junior high school, however, many educators began to include the junior high school in secondary education, which added 2 years to the lower level of secondary education. Then another new institution known as the junior college began to appear with some prominence immediately after the beginning of the century.

The junior college movement expanded rapidly after 1920 especially in the West. In 1917 there were some 46 junior colleges enrolling 4,500 students. By 1945 there were some 580 junior colleges enrolling nearly 250,000 students, and there were 19 states that had 10 or more junior colleges. The prospects were for an enormous growth of junior colleges and technical institutes in the period following the Second World War. New York State planned 20 technical institutes to give vocational, technical, and general education to 100,000 students in 2-year courses beyond high school. Illinois, California, and many other states were making similar plans.

There were thus a good many different conceptions of the organizational pattern for secondary education. Some localities held to the 8-4 plan; some continued with a 6-3-3 arrangement and considered the junior college as higher education; others began to experiment with a 6-6 arrangement, considering grades 7 through 12 as a unitary 6-year high school. Some with an 8-year elementary school were thinking of secondary education as a unitary 6-year institution including the junior

college years (8-6 plan). Still others were thinking of a 6-4-4 plan in which grades 7 through 10 were thought of as a lower secondary school and grades 11 through 14 as an upper secondary school.

The trend was definitely in the direction of raising the expectation that the majority of American youth would find educational facilities easily available to them up to the age of twenty. Whether the expectation would go beyond that age no one could say, but it was clear that the expectation had steadily risen in the course of a hundred years. It took a battle in the nineteenth century to provide public education for all children up to ages thirteen or fourteen; it was even harder to establish the terminal age at seventeen or eighteen (the end of high school). The road seemed easier in the twentieth century, for the public began to recognize the educational values of extended schooling. That this realization was actually not long in coming was shown by the phenomenal rise in public high school enrollments from about 500,000 in 1900 to a 1,000,000 in 1910, 2,000,000 in 1920, over 4,000,000 in 1930, and approximately 7,000,000 in 1940.

Higher education. The task of defining American higher education became fully as baffling. First of all was the question whether the first 2 years of college should be considered as secondary education. Some educators believed that it should be so considered. President Robert M. Hutchins in recent years went so far as to recommend the giving of the B.A. degree at the end of the second year to signify the end of general education, which was counted a continuation of secondary education. Arrayed firmly against such suggestions, however, were the advocates of the 4-year liberal-arts college, who maintained that its integrity should be preserved.

At the beginning of the twentieth century the 4-year college was the predominant institution of higher education. However, it began to lose its unique position as the junior college nibbled away at the first 2 years and as professional and technical education began to bite into the second 2 years. The growth of large universities with their professional, technical, and graduate faculties began to dominate the offerings of the undergraduate colleges so that preparation for advanced specialized work became a prominent goal of college instruction, especially during the last 2 years of the 4-year college. Enrollment advanced by leaps and bounds, increasing from nearly 250,000 in 1900 to nearly 1,500,000 just before the Second World War.

One of the outstanding trends in the control of higher education was the increasing proportion of public funds that went into the support of colleges and universities in the twentieth century. State universities, land-grant colleges, and municipal colleges came to overshadow the private institutions in numbers of students. From the depression years

of the early 1930's onward the resources of private fortune that had fed college endowments began to dry up, and many colleges found themselves in financial difficulties. The onset of the Second World War made the problem still more acute. High taxes on income and the great decrease in enrollment of men students brought many privately endowed institutions to the brink of disaster. Many colleges were able to tide themselves over the war years with the help of an increased enrollment of women and with government funds derived from the Army Specialized Training Program, the Navy V-12 Program, the Engineering-Science-Management War Training Program, and other war activities.

With the end of the war a boom in enrollment for most higher institutions began as returning veterans flooded into the colleges to take advantage of the educational benefits of the G.I. Bill of Rights. By the end of 1945, some 125,000 veterans had already been enrolled, another 200,000 had made application, and by the autumn of 1946 more than half of the 2,000,000 students in higher institutions were veterans. Some 30 or 40 per cent of the veterans were married, and 10 per cent had children. These facts were producing a tremendous housing shortage that caught the colleges unawares and led to demands for federal emergency-housing programs. The desire for education surpassed the expectations of many, and the colleges tried to recapture their staff members and return to a normal program after the wartime speed-up that had resulted from the accelerated programs and had kept many institutions running 12 months in the year.

The Teaching Profession

Social status of teachers. In the twentieth century the status of teachers improved considerably; but, in comparison with other occupations, teaching was fairly low in the scale of financial returns. Average salaries of all public school teachers increased from about \$325 a year in 1900 to approximately \$1,350 in 1940. Professor Harold F. Clark of Teachers College, Columbia University, found that, between 1920 and 1935, public school teachers ranked eleventh out of 15 occupational fields in average annual earnings, falling behind the skilled trades, clergymen, librarians, journalists, and college teachers and outranking only farmers, unskilled laborers, and nurses. Physicians, lawyers, engineers, dentists, and architects earned 3 to 3½ times as much as teachers. The average of \$1,350 did not tell the whole story by any means. The director of research for the National Education Association found that in the early 1940's the average salary for teachers in Mississippi was \$526, while it was more than \$2,600 in New York. Nearly 200,000 teachers received less than \$1,200 a year, and 28,000 received less than \$600

a year. It was no wonder that teachers left the schools by the thousands in the early 1940's to engage in war work of a more remunerative kind. Estimates indicated that there was a shortage of some 75,000 to 100,000 teachers before the war ended.

The low financial return for teachers became an urgent concern of many educators, who urged that teachers' salaries should be based upon cost-of-living requirements to ensure a decent standard of living for teachers in comparison with occupations requiring similar preparation and competence. They also urged that salaries be based upon training and experience rather than according to the grade level or subject taught, for the tradition had been to pay secondary school teachers more than elementary school teachers. Furthermore, extra allowances should be paid to married men with families, and annual increments should be given over a fairly long period of time to keep initiative and interest high. Certification requirements, tenure provisions, and sick-leave and retirement allowances have been improved in recent years. These all helped to compensate somewhat in greater security for the lack of financial reward. Much remained to be done in these respects, however.

Doubtless, part of the reason for the low financial status of the teaching profession was the fact that most teachers were women, who were somehow expected to be able to live on less than men. If they were single or had husbands at work, the assumption was probably true. In addition, woman teachers have often not felt that it was "dignified or respectable" to agitate for higher salaries or press their claims upon legislatures or boards of education as almost all other organized groups have done. In 1900, about 70 per cent of public school teachers were women; this increased to about 85 per cent in 1920, following the First World War, when many men had gone into the service. The percentage of women dropped again to about 80 per cent in 1934 but rose again during the Second World War.

Social pressures upon teachers have correspondingly been great. The public has been very eager to make its teachers toe the mark of respectability and conform to the dominant mores of the community. Studies have shown that the private and public lives of teachers have been more subject to public approval or disapproval than those of almost any other group in the community, aside from the clergy. Smoking, drinking, card-playing, "dating," and dancing have rivaled radicalism for public disapproval. Discrimination against Negroes, Roman Catholics, Jews, pacifists, militarists, and divorced or married women has had free rein in various communities, depending upon the times and upon the character of the population.

The whole problem of academic freedom has been a thorny one in the twentieth century, for teachers have been put under a wide variety

of pressures to support certain causes or to avoid others. The nature of "hot" controversial issues has changed with the times and has varied with localities. In one community at one time a pacifist teacher might get into trouble; in another community a militaristic teacher would be in trouble. In the 1920's the battles between fundamentalist religion and evolutionary science were bitter. In the 1930's the "Red scares" were numerous, and many teachers with liberal or even New Deal proclivities were subject to being labeled as communists. Until late in the 1920's teachers who joined labor unions or were outspoken in favor of labor were subject to "yellow-dog" contracts, in which it was stipulated that they would be discharged if they joined a union. This attitude still prevails in many parts of the country, but gains have been made.

In the 1940's the hottest issues centered in the interracial and inter-group problems of minority relations. As a result of the interplay of these social forces, some educators have proposed that controversial issues should not be treated at all by teachers but rather that teachers should teach only what is commonly accepted by the community. Other educators have proposed that teachers should treat controversial issues but should treat all sides fairly and remain completely neutral, leaving it to the students to decide what positions they will take. This view has often been summarized in the phrase "Teach students *how* to think but not *what* to think." Still other educators have urged that teachers must face controversial issues openly and fairly, indicating the various positions that community groups take on the issues and where the teacher himself stands. They insist that the teacher must make a selection from the whole range of possible materials to be taught and that such selection inevitably reveals the underlying assumptions and point of view of the teacher. Therefore, it is argued, it is more conducive to good teaching for the teacher to state his point of view rather than attempt to conceal it and insist that he has no ideas on the subject himself.

If teachers think through such problems carefully and make their decision on the basis of genuine study and scholarship, then they should be free to teach the values of democracy as they see it. In the last analysis, academic freedom will be won when the community is convinced of the integrity and honesty of its teachers. Academic freedom can be promoted by improving the preparation of teachers, by extending tenure laws, and by building strong professional organizations of teachers that will support honest teaching and defend it from attacks by pressure groups desirous only of serving their own special interests. On the other hand, some basis that is well understood should still be available for removing incompetent teachers after a fair hearing and the consideration of genuine evidence openly arrived at.

Teachers as a rule have been recruited from the agricultural and lower middle classes in American society. This social composition of the teaching profession has been modified somewhat in recent years but remains substantially true today. Ordinarily, teachers have not brought to teaching a background of organized labor that would prompt them to work actively for higher salaries, nor have they had a wealthy background that would enable them to overcome the relatively meager salary scales. Raising the social estimation of teaching seems to be a matter of raising salaries in order to attract more competent persons to the profession and raising the standards of preparation and qualifications for teaching in order to command a higher return for services rendered.

Preservice education of teachers. The preservice education of prospective teachers has expanded its purposes and raised its standards in many ways. Replacing the older conception of "training" as embodied in the earlier normal schools, new institutions of teacher education have appeared in the last fifty years. Since 1920 the trend has been away from the normal school idea and toward the teachers-college idea. In 1920, there were 137 state normal schools; by 1933, only 50. A teachers college usually requires high school graduation for admission, offers 4 years of college-grade work, and grants a bachelor's degree at the end of the course. Many new teachers colleges were founded, and many normal schools became teachers colleges.

In 1920, there were 46 teachers colleges; by 1941, there were 185 accredited teachers colleges, most of which were state teachers colleges distributed through 42 states. Among the most important of the private institutions are Teachers College of Columbia University and George Peabody College for Teachers in Nashville, Tenn. Many of the teachers colleges award a master's degree and a few the doctor's degree in addition to the bachelor's degree. Some states are requiring new teachers to acquire a master's degree before they begin to teach in a high school.

Secondary school teachers commonly receive their preservice education in liberal arts colleges, teachers colleges, and universities; elementary school teachers are prepared principally by teachers colleges, normal schools, and universities. The preservice education of teachers is coming to be recognized as including the following four elements: general education, subject-matter specialization, foundations of education, and induction to teaching.

General education is intended to give the prospective teacher a broad knowledge and acquaintance with the major fields of organized knowledge and of human activities. Subject-matter specialization in the field in which the prospective teacher will work is usually required as a special competence in addition to the general education. The trend has been definitely to widen the conception of what a field of specialization is;

this "broad-fields" approach usually applies to such classifications as the humanities and language arts, social sciences, sciences and mathematics, and the arts.

The foundations of education, or "courses in education," are usually intended to give the prospective teacher a wide acquaintance with the field of education in its various social relationships and to provide an acquaintance with educational problems that are common to all teachers no matter what subject they may teach. The foundations function is usually fulfilled through courses in philosophy or principles of education, history of education, educational psychology, educational sociology, or the social foundations of education. Some institutions are attempting to weave the elements of these separate foundational approaches into an integrated orientation to the whole field of education.

The induction to teaching is intended to give the prospective teachers the opportunity to apply in actual teaching situations the principles and knowledge that they have acquired in their other work. Induction thus is coming to be looked upon as a continuing process that includes observation of instruction and participation in teaching procedures, and culminates in actual student teaching or practice teaching.

In-service education of teachers. In addition to the improvement in preservice education, there has been a vast increase in the opportunities for the in-service education of teachers in the last 50 years. One of the most important agencies of regular in-service education of teachers has been supervision of instruction. Formerly, supervision was conceived as the inspection by administrators of classroom management as conducted by teachers. Elaborate check lists were developed by which administrators and supervisors would rate teachers in many detailed respects, and standardized tests were given to pupils as a means of determining how well the teacher was doing his work. As a result of such means, the supervisory officer would tell the teacher how to improve his work.

In recent years the trend has been toward a more democratic and co-operative conception of supervision in which supervisors and teachers worked together on the individual learning and personality problems of pupils and on developing appropriate curricular materials and methods. The growth of this conception of supervision can be traced in the development of the Department of Supervisors and Directors of Instruction of the National Education Association.

Summer study at higher institutions has become another one of the most popular and important direct methods of professional growth for in-service teachers. Most institutions of teacher education have also made special provisions by which teachers can engage in part-time study by attendance at late afternoon or evening classes in off-campus centers

or at a near-by institution or by home-study work. Another most important development in in-service education in recent years has been the workshop movement, which has tried to increase the participation of the teacher in his professional growth. Above all, the workshop principle has centered special attention upon the individual problems that a teacher faces in his own situation. A great amount of individual conference work, small group work, reading and study, and provision for recreational and artistic outlets characterizes most workshops.

In addition to these methods, the various kinds of professional organizations have provided direct means of in-service growth for teachers. The National Education Association is the largest educational organization in America and includes numerous affiliated associations of a specialized kind. The American Federation of Teachers (affiliated with the American Federation of Labor) and the American Education Fellowship (formerly the Progressive Education Association) are smaller but influential national organizations of teachers, who find considerable professional stimulus from their work in these groups. There are also numerous national organizations of teachers devoted to one or more of the recognized subject-matter fields such as the National Council for the Social Studies and the National Council of Teachers of English. Finally, hundreds of local teachers' associations enroll many teachers and carry on active professional programs.

Outstanding in the improvement of the education of teachers has been the great amount of research and investigation on a wide range of professional problems that has occurred in the past 50 years. In the forefront of this process has been the work of professional educators at teachers colleges and schools of education throughout the country. Professional organizations such as the National Education Association, the Progressive Education Association, the National Society for the Study of Education, the National Society of College Teachers of Education, the American Association of Teachers Colleges, the John Dewey Society, and many others have taken the lead in this process.

Extensive surveys have also had much influence. One of the earliest of these was the study made by W. S. Learned and W. C. Bagley for the Carnegie Foundation for the Advancement of Teaching, published in 1920. A second study, known as the Commonwealth Teacher Training Study, used the methods of job analysis to discover specific lists of activities and traits desirable for teachers. It was conducted by W. W. Charters and D. Waples from 1925 to 1928 and was financed by the Commonwealth Fund of New York. A third and more extensive study was the National Survey of Teacher Education, authorized by Congress and conducted from 1928 to 1931 under the leadership of Professor E. S.

Evenden of Teachers College, Columbia University. It was published in six volumes in 1933 by the United States Office of Education.

One of the most important recent agencies for the improvement of teacher education in its outlook and methods of approach has been the Commission on Teacher Education of the American Council on Education. The commission, headed by Professor Karl W. Bigelow of Teachers College, was established for the 5-year period from 1938 to 1943 to make an over-all study of the problems of teacher education on a national scale. Perhaps the most important aspect of the commission's work has been the field study project, in which some 35 or 36 institutions were invited to work cooperatively on the improvement of teacher education. The staff of the commission set up consultative services, workshops, institutes, and agencies for the sharing of experiences among the cooperating institutions. The purpose of the commission was not to lay down specific patterns for all institutions to follow but to help a variety of institutions to improve and evaluate their own programs.

Nonschool Agencies of Education

Nonschool agencies of education in the twentieth century expanded so greatly in range and variety that only a few outstanding examples can be mentioned here. The family, of course, has continued to be the first and most important educative agency in the lives of most children, but the character of family life has been so greatly affected by industrialization, urbanization, depression, and wars that special agencies have grown up to improve the quality of family care and upbringing of children.

The movements for child study, mental hygiene, and parent education have taken many forms. Child-guidance clinics supported by community-welfare agencies, hospitals, and schools have made available psychiatrists, psychologists, pediatricians, and social psychiatric workers to help with the care of children. The Child Study Association of America has been prominent in this process. The parent-education movement has also grown rapidly, resulting in the organization of the National Congress of Parents and Teachers, which is a federation of parent-teachers associations with branches in all states and a membership of 2,500,000. Recognizing that the social and emotional difficulties of parents often account for emotional disturbances in children, this movement has tried to educate parents by conferences, publications, discussion, and instruction.

Churches have also continued to be important nonschool agencies of education. In addition to regular church services and spiritual guidance, many church organizations have provided activities largely educational in nature. Especially among Protestant denominations these have in-

cluded Sunday schools enrolling some 20,000,000 children, young people's societies enrolling some 3,500,000 youth, summer-vacation church schools, and summer camps and conferences. The Young Men's Christian Association, Young Women's Christian Association, and Jewish and Roman Catholic groups have continued to carry out extensive educational programs.

A large number of organized groups for boys and girls have focused around such agencies as the Boy Scouts, Girl Scouts, Girl Reserves, Camp Fire Girls, Hi-Y, Junior Red Cross, youth hostels, neighborhood centers, and settlement houses. The informal and autonomous voluntary groups like the "gangs," clubs, and "dens" of New York City have attracted the interests and enlisted the loyalties of many boys and girls who resisted parental and adult supervision.

Out-of-school youth. From the time of the depression the youth who were not in school became one of the most acute problems of American life. The American Youth Commission was established in 1935 by the American Council on Education to study the whole problem of youth in America. A notable series of publications, research studies, and investigations was produced under the direction first of Homer P. Rainey and later of Floyd W. Reeves. In 1937 it was estimated that there were approximately 20,000,000 youth between the ages of sixteen and twenty-four in the United States; of these about 20 per cent were in school, 40 per cent employed, 15 per cent married women, and 25 per cent unemployed. The percentage of unemployed and of those who felt that they were in "dead-end" jobs was much higher in depression years. It was to relieve this desperate situation of frustration, cynicism, and idleness that the CCC and the NYA were organized by the New Deal.

The CCC was established in 1933 and ended in 1942, when the war industries, military service, and political opposition had reached their crescendo. Unemployed youth from families on relief provided the largest proportion of enrollees, most of whom were in their teens. Enrolling as many as 520,000 youth in 2,600 camps in 1935 the CCC set youth to work primarily on soil and forest conservation and public works. Operated under the supervision of the War Department the camps also developed educational programs in reading and writing for illiterate youth as well as regular academic and vocational courses at elementary and secondary school levels. In 18 months from May, 1940, to November, 1941, some 665,000 CCC youth received vocational training in some 4,000 courses useful for national defense. These courses included motor mechanics, metal- and woodwork, electrical work, welding, and airplane construction, as well as a large number of other activities.

The NYA was established in 1935 as a part of the WPA and transferred in 1939 to the Federal Security Agency until it was abolished in

1943. The principal aims of the NYA were (1) to give financial aid to students in secondary or higher institutions so that they could work part time and thus stay in school and (2) to give work experience and training to unemployed youth in order to prepare them for regular jobs. The student-aid program had benefited more than 2,000,000 different students by the end of 1941-1942, after which this phase of the program was abolished. The work program gave all kinds of vocational training to young men and women between sixteen and twenty-four as well as sewing, music, art, and recreational activities. In 1940 to 1941 virtually all the efforts of the NYA were devoted to training youth for defense industries, and by April, 1942, some 30,000 youth were trained each month for war production. Under congressional attacks upon Aubrey Williams, head of NYA, it was finally terminated along with the CCC.

With the death of CCC and NYA and the nearing end of the war, the principal controversies over youth education were focused upon compulsory military training. Before the end of 1944 two bills were introduced into Congress to establish a year of universal military training for all American boys of seventeen or eighteen years of age. The War and Navy Departments, the American Legion, the Veterans of Foreign Wars, the United States Chamber of Commerce, and many other groups favored such action. The Gallup and *Fortune* polls showed a majority of public opinion in favor of such training.

On the other side, however, virtually all church organizations expressed themselves as opposed to universal conscription and most educational groups as represented by the Educational Policies Commission of the National Education Association, the American Council on Education, and the National Congress of Parents and Teachers urged delay in deciding the issue until the war was ended. By the middle of 1946 the issue was still undecided, and the controversy continued to be waged hotly on both sides. To many, the establishment of the United Nations Organization and the atomic bomb had brought new factors into the situation that seemed to make the traditional type of military training less useful than it might have been. President Roosevelt had expressed himself in favor of some sort of universal national service, not entirely military in nature and devoted to public works somewhat along the model of the CCC, but the quarrels on military training overshadowed such proposals. As a temporizing measure and after much controversy, Congress extended selective service into 1947, and the question of universal military training was thus postponed.

Adult education. In addition to the organized educational activities already mentioned there was a great development of a wide variety of adult-education activities, especially since 1920. It became increasingly clear that the personal, occupational, political, economic, and cultural

needs of millions of adults were not being met by organized educational agencies. The American Association for Adult Education was organized in 1926 and since 1941 has had its headquarters at Teachers College, Columbia University, where an Institute of Adult Education serves as a liaison between the association and public education. The association is a clearinghouse of information for research, investigation, publication, and promotion of adult-education programs.

The oldest interests of adult education have been the removal of illiteracy and the Americanization of the foreign-born. When it was apparent in 1930 that more than 4 per cent of the adult population was still illiterate, the WPA conducted a wide program to teach adults to read and write. In 1940, when 5,000,000 resident aliens were required to register with the government, a National Citizenship Education Program was sponsored by the Department of Justice with the cooperation of WPA under the direction of Dean William F. Russell of Teachers College, to reach the more than 4,000,000 aliens who might become desirable American citizens. New methods and new techniques were developed by outstanding educators to make this more than simply literacy education and to promote social, political, and cultural understanding of the American way of life.

Regular night and day classes for adults have expanded under local and state as well as federal auspices. Institutions like the New School for Social Research, Town Hall, Cooper Union, and Brooklyn Institute have broadened their activities. Public-forum movements like those of Des Moines, Chicago, Cleveland, New York, and San Francisco have attracted large numbers of people. Leaders in the field urge the establishment of community councils to coordinate the broad front of adult-education activities by the cooperation of all interested agencies, public and private.

Special organizations of many kinds aimed their activities at particular elements in the community. Settlement houses, public-health nurses, private nursing and social-work agencies, like the Henry Street Settlement and the Henry Street Visiting Nurse Service in New York, helped families who were ill and who needed care for children and the aged. The Cooperative Extension Service of the United States Department of Agriculture, county agents, and 4-H Clubs served rural sections. In the cities, labor unions and other groups expanded workers' education. The International Ladies Garment Workers established an educational director as early as 1916, and later, under the leadership of Mark Starr, it conducted one of the most extensive and effective educational programs for workers in the world. The Workers' Education Bureau of America was established in 1921, and many other labor unions developed educational programs. The Summer School for Workers, begun at the

University of Wisconsin in 1925, conducted a series of institutes for laboring men and women in a broad range of subjects including not only special union problems but also political, economic, educational, consumer, international, journalistic, and public-speaking topics.

Libraries and museums began to think of their function as broadly educational and took steps to bring more people within the range of their activities and to extend their influence beyond their own walls. As early as 1910 the American Red Cross began its educational programs, which reached hundreds of thousands in the war years and included instruction in first aid, home nursing, nutrition, work for nurses' aides, swimming, diving, lifesaving, and accident prevention, besides its various volunteer special services and disaster preparedness. Women's organizations sometimes sponsored definite educational programs, such as those provided by the League of Women Voters and the American Association of University Women. Radio networks gave thought to serious educational programs; Lyman Bryson's work for the Columbia Broadcasting System furnishes a good example. In many other ways and through countless organizations of a business, labor, civic, and fraternal nature, the education of the American public was promoted, sometimes for special interests, but sometimes in the interests of the general welfare.

EDUCATIONAL AIMS, CURRICULUM, AND METHODS

Reinterpretation of Aims

The interplay of the various social and intellectual movements in the twentieth-century United States led to a variety of new claims upon the educational program. In the first two decades of the century the traditional religious and philosophical outlooks continued to stress moral development and mental discipline as the paramount aims of education. However, the rise of a scientific psychology and realistic philosophy began to stress the informational and practical aspects of education, and a few voices here and there began to urge the claims of individual development and social needs for education.

In the 1920's the tempo of interest in individual development was accelerated by the growing power of the psychology of individual differences and the dominant individualism of business enterprise and capitalistic social outlook. Greater attention was therefore given in education to arrangements that would individualize instruction. In the 1930's and 1940's the events of depressions and world war forcibly and increasingly drew the attention of educators to the claims of industrialism and technology and evoked efforts to think of democracy in social rather than in individualistic terms. Consequently, greater attention was devoted

in education to prepare students to play their parts in a democratic society.

The change from a stress upon individual development to a stress upon the social needs of youth was well illustrated in the change of outlook among "progressive" educators. With the organization of the Progressive Education Association in 1918 the dominant interest for 15 or 20 years was to release the individual capacities of children in the "child-centered" school. All kinds of new methods and activities were devised to aid the development of individuals. In the middle 1930's the critical social situation in the United States and in the world made it clear to the "frontier" group of progressive educators that the aims and curriculum of schools and colleges should consider more fully the needs of society and should be based upon a rounded conception of the desirable social system that should be achieved in the United States. Prominent spokesmen among progressive educators urged that the traditional aims of education should be reinterpreted in the light of the newer conceptions of an experimentalist view of human nature and an industrial view of democratic society (see pages 521 to 525, 580 to 597, and 606 to 610).

According to this view, character and moral development are prime requisites for education. Character was conceived as arising from the interaction of the individual with his cultural environment. Moral conduct is to be achieved not so much by religious injunctions as by increasingly intelligent participation in democratic processes. Discipline remained an important aspect of educational aims but was to be developed not so much by authority stemming from the imposition of the teacher as by the realization of the social requirements of discipline as the individual takes part in group activities. Information and knowledge were still considered to be important, not as ends in themselves, but as means to the more intelligent solving of problems recognized as important to the learner. Vocational and practical aims took a paramount position, not in a category separated and distinct from other aims, but closely allied to the general development of character, discipline, and knowledge—knowledge and action always to be closely related. Individual development is a most important quality of democratic education, but it was increasingly claimed that individual capacities are developed most effectively as an integral part of the social process.

The interactive process means that individuals realize their potentialities in and through a genuinely democratic social participation. The well-developed individual cannot be considered apart from a consideration of a desirable social order, in which individual needs are fulfilled by a democratic society. All good education rests upon a good society. As this kind of reinterpretation of educational aims gained headway in American education, many changes took place in the curriculum and

methods at all levels of the schools and colleges, but not without vigorous opposition from educationally and socially conservative groups. The trend, however, was unmistakable.

Elementary Education

As the century opened, the traditional subject-matter curriculum was in the saddle in elementary schools. Paramount stress was laid upon the acquisition of knowledge and skill in the fundamental operations of reading, writing, spelling, and arithmetic; lesser stress was given to the content of elementary science, history, geography, music, art, and physical education. The earliest efforts to reform the elementary curriculum took the form of various attempts to individualize instruction. One of these reforms centered in the "project method," which borrowed its ideals from the practical fields of manual training, home economics, and agriculture. Gradually the project idea was transferred to almost all other subjects as a means of giving the pupil a chance to work on actual practical problems as nearly lifelike in quality as possible.

Often the project became a "unit" of work designed to give a comprehensible and definite amount of knowledge through attendant activities to be undertaken by the student. Projects and units became the rage in the first three decades of the century. They even became the basis for a thoroughgoing reorganization of the elementary school curriculum in such "plans" as the Dalton plan and the Winnetka plan. At Dalton, Mass., in the early 1920's, Helen Parkhurst devised a series of projects, units, or large problems known as "contracts." A contract set forth a definite amount of reading, exercises, and written work to be done in a specified amount of time, usually 3 or 4 weeks. At Winnetka, Ill., Superintendent Carleton Washburne instituted an arrangement by which a certain number of projects or units were assigned to each grade level and students were allowed to proceed at their own individual rate in mastering the subject matter of the projects. Individualized instruction was thus a matter of adjusting the speed of achievement to the abilities of the children, but the subject matter to be mastered was constant for all. In this way the brighter students could advance more rapidly, and the slower students were given necessary help in acquiring the minimum standards.

Another and even more popular device to individualize instruction was the effort to classify students into different groups according to their ability. Known as "ability groups," "homogeneous groups," and "XYZ groups," these arrangements swept the country in the 1920's largely as a result of the new findings of the psychology of individual differences and the intelligence-testing movement. Most commonly, students were divided according to scholastic aptitude as measured by intelligence tests.

Thus, the brightest pupils could be given extra work in an "enriched" program and not be held back by the slower pupils; the average students did somewhat less than the brightest; and the slowest, or "dull," students could be helped to achieve the minimum essentials. Individualized instruction in this way could be achieved by keeping the promotion rate constant for all, but the curriculum could be adjusted to varying abilities.

In the 1930's, many elementary educators felt that a more thoroughgoing attack upon the elementary school curriculum should be made. They argued that projects, units, contracts, ability grouping, and the like, were simply devices for improving the acquisition of subject matter. They urged that the real basis for organization should be the experiences of the learners. Therefore, they argued that the curriculum should be conceived, not as a course of study consisting of subject matter to be learned, but as the total range of experiences involved in the school activities. The idea of the "experience" curriculum revolved around the "activities movement." The leading exponent of this view was William H. Kilpatrick at Teachers College, Columbia University.

The activity program meant many things to many people, but it often resolved itself into the idea that the learner should be viewed as a "whole" and that learning is best when activities are purposeful and interesting to the learner. The learner was viewed as active and creative; he should have a part in initiating, planning, carrying out, and evaluating his activities. "Learning by doing" became the catchword, and great emphasis was put upon freedom for the learner to engage in activities deemed important by him and to criticize intelligently his own learning process.

Since learning is not a specific thing but involves the acquisition of attitudes and habits as well as knowledge, the integration of the whole personality of the learner is the ultimate aim of the educative process. The test of learning is not the ability to pass factual examinations but the way the individual behaves in subsequent experiences; the individual learns only what he "accepts to act on" and what he brings away from the situation in knowing, thinking, and feeling. Much attention was given in the activity program to discussion, trips, making things, dramatic and pictorial representation, and sharing experiences through displays and assembly programs, as well as reading books and writing reports.

The early progressive schools that went to the extremes of the activity program in the 1920's and 1930's began to bring down upon their heads the accusation of conservatives that they were simply coddling pupils and catering to their passing interests. Criticism was leveled at the lack of discipline and bad manners among progressive students, as

well as their failure to grasp the fundamental information and skills deemed necessary by traditional and "essentialist" educators. The individualistic methods of the early progressives also were increasingly criticized by those within the ranks of progressive educators who began to stress the social needs of modern American youth.

In the 1930's and 1940's an ever larger company of educators insisted that the whole educational process must be considered a social process. Group activities in learning through cooperative efforts, the dealing with vital social problems rather than casual interests of children, and a vital connection between the school and community were paramount in their proposals. Above all, these newer progressive critics insisted that education must rely upon a fundamental democratic philosophy of society in which the curriculum is built and carried out through democratic methods of study, discussion, and cooperation and aimed at a definite social program. Some progressives said that the democratic philosophy is served simply in the *process* by which teachers and students cooperatively work out their activities; others said that democratic education must be geared to a *program* of social reform, as well as relying upon democratic school arrangements.

As a result of these criticisms, the curriculum began to be shaped by the needs of society as well as by the interests of pupils. It became clear to many that the needs of children cannot be separated from a conception of a desirable kind of society in which they are to live. It seemed clear that the school experiences should be planned not only with reference to good learning activities of individual children but with reference to the social significance of the problems that children face and solve. "Areas of living" in a democratic society became a key concept for the cooperative building of the school program; children should not be allowed to neglect the development of abilities in such areas as home and family life, personal relationships, social and civic responsibilities, economic and occupational life, and health, recreation, and leisure activities. Educators continued to be divided in their outlooks concerning whether or not such a curriculum should be based upon a fairly well defined kind of society toward which educators should move.

Regardless of the outcome of these controversies, most progressive educators were urging the expansion of the services of the elementary school to include more attention to such activities as child study and mental hygiene; educational and vocational guidance, counseling, and personnel services; medical and health education, recreation, and physical education; and special treatment of exceptional children ranging from the farthest above normal to the farthest below normal in physical, mental, and emotional characteristics. Both World Wars and the several depressions helped to stimulate activities along these lines.

The Second World War resulted in many immediate demands upon the schools in the form of salvage drives, war-bond drives, help with rationing and price control, victory gardens, Red Cross activities; development of technical and vocational courses related to preflight training, automotive mechanics, and mathematics and science; and the teaching of loyalties, reasons for the war, and attitudes toward the peace. As the immediate necessity for many of these activities lessened with the ending of the war, educators turned again to the underlying problems connected with developing a program of education most suitable for children in a democratic society devoted to ideals and practices of world cooperation and peace.

Secondary Education

Several factors in the twentieth century led many educators to believe that a thoroughgoing revision of the secondary school curriculum should take place. One of these factors was the change in the character of the high school population. In 1900, about 10 per cent of youth of secondary school age were actually in school; by 1946, some 70 or 75 per cent were actually in school. This meant that a much wider range of social and economic background as well as of scholastic aptitude was represented in the secondary schools. This meant also that the aim of college preparation was no longer the dominant purpose of the high school. Whereas about 75 per cent of high school graduates went on to college in 1900, only about 25 per cent of high school graduates went to college in 1940. With these changes it became clear to many that the traditional aristocratic and relatively exclusive character of secondary education must give way to a kind of secondary education that would meet the needs of the students it dealt with.

Another change in secondary education was the continued multiplication of subjects and courses in the high schools. All subjects expanded enormously as a result of the new industrial, scientific, and scholarly activities. The high schools were flooded with courses in English, social studies, science, mathematics, commercial, home economics, and vocational studies, art, music, foreign languages, and physical education. This multiplication of subjects meant that the elective system was standard practice, and the subject curriculum of separate, isolated, and discrete subjects carried the day. Students were likely to specialize excessively or scatter their efforts over a large number of subjects having little relation to each other. In view of this "suicidal specialization" and "excessive smattering," many educators began to urge a reorganization of the curriculum in order to give more continuity and unity to the students' programs.

One step in this direction was taken by the Commission on Reorganization of Secondary Education, which issued its famous *Cardinal Principles of Secondary Education* in 1918. The commission urged that secondary education should provide for specialization through selection of elective courses and also for uniformity through common activities that all students would pursue. These specializing and unifying functions were to be related to the seven principal objectives of secondary education: health, command of the fundamental processes, worthy home membership, a vocation, civic education, worthy use of leisure time, and ethical character. From that time on, many efforts were made to achieve a greater "correlation" and "fusion" of subject matter in order to overcome the specialized subject matters.

Some schools grouped the various subjects into "broad fields" of knowledge in the effort to show the relationships between groups of studies. The most common "broad fields" were language arts, social studies, science and mathematics, and the arts and music. Students were often required to take a certain amount of work in each of the broad fields in order to acquire a general acquaintance with the several basic fields of organized knowledge. "Survey courses" were developed to give a general understanding of the broad fields and were designed for all students, in place of the more highly specialized courses suitable to the interests of the specialist in a narrow field.

"Problems courses" were devised to give the opportunity for students to become acquainted with basic social problems or broad themes of human development, the understanding of which required drawing upon a wide range of subject matter that cut across the traditional subject fields. The study of a whole culture, for example, would draw upon literature, language, history, politics, economics, science, art, and music as they were needed. Sometimes the "problems" were defined in terms of "unemployment," "problems of American democracy," "transportation and communication," "industrial society," and the like. Other programs tried to go beyond these reorganizations and use the techniques of the activities program and experience curriculum as they were being developed in the elementary school. The social studies often took the lead in these efforts to correlate or integrate the learning activities of students.

The trend was definitely toward providing a common background of outlook, knowledge, and experience for all students. This often took the form of a "core curriculum," or "core course," required of all students for a large share of their schooltime. The whole trend was sometimes designated as the "general-education movement." It was claimed that thereby the evils of the elective system and separate subjects could be

remedied and students would achieve a more integrated understanding of social development and of their own role in a democratic society.

This process was aided by the support given to the social aims of education by influential publications of the Educational Policies Commission of the National Education Association, the American Historical Association's Commission on the Social Studies, the American Council on Education, and the Progressive Education Association. In contrast, traditionalists were reacting to the confusions in American education by urging a return to the study of the great heritage of the past as a means of unifying educational experiences (see pages 599 to 603).

One of the most significant developments in secondary education in the twentieth century was the cooperative program undertaken by the Commission on the Relation of School and College of the Progressive Education Association, popularly known as the "Experiment of the Thirty Schools" or the "Eight Year Study." Beginning in 1933 under the direction of Wilfred Aikin, the commission enlisted some 30 public and private high schools to reorganize their programs and arranged with some 200 colleges to accept the graduates of these schools with no college-entrance requirements except the recommendation of the principals of the schools.

Here was a broad attack upon the problem to see if high school graduates of "progressive" schools could do as well in college as did graduates of traditional schools who met the usual college-entrance requirements. Each school was left to its own devices within a framework of general principles: greater mastery and continuity of learning, a clearer understanding of the problems of our civilization, the development of a sense of social responsibility, release of creative energies, greater freedom for students and teachers, and an emphasis upon guidance and counseling of students. The schools offered programs ranging from the "broad-fields" and "problems" type of approach to an "experience" curriculum centered in some enduring interest, need, or vocational objective of individual students.

The first graduates of the progressive schools went to college in 1936, and a follow-up study was undertaken to see how well the whole group did in academic subjects, college life, and personal development. The evaluation staff under the direction of Ralph Tyler compared 1,475 graduates of the progressive schools with an equal number of students from traditional schools. Each progressive student was paired with one from a traditional high school of equivalent age, sex, race, intelligence, scholastic achievement in high school, and general economic and social background.

By careful analysis, study, and observation the evaluation staff discovered that the progressive students earned a slightly higher total aver-

age of grades in college and more academic and nonacademic honors than the traditional students. The progressive students were more often judged to possess a high degree of intellectual curiosity and drive, to be precise, systematic, and objective in their thinking, to demonstrate a high degree of resourcefulness in meeting new situations, to participate more frequently in appreciative and art experiences as well as in most student activities, and to have developed a better orientation toward the choice of a vocation and a more active concern for what was going on in the world.

An interesting point was that the graduates of the six most progressive schools (which changed their programs most radically from the traditional program) did better in college than the graduates of the six least progressive schools (which changed their programs least from the traditional program). The range of social and economic background in the progressive schools was as great as in the average public high school, but the proportion of low-income groups was not as large as in the country as a whole. However, of two students with equal scholastic aptitude, it was found that the student from the lower socioeconomic group did better in college.

These careful and extensive studies seemed to show without doubt that changes in high school programs made for noncollege-preparatory reasons did not handicap those students who did go to college and undoubtedly gave to all students a more useful kind of education in meeting their individual and social problems. The bogey of college-entrance requirements was definitely on the run, even if not yet laid to rest.

Higher Education

As the twentieth century opened, the elective system seemed to be the proper answer to the demands of the prevailing "isms" of the day—industrialism, capitalism, and individualism. Apparently, it had solved the difficult problems raised, on the one hand, by the tremendous additions to knowledge achieved by the physical and social sciences and, on the other, by the growing demands of a young democracy that more and more youth should be given the advantages of higher education. As the colleges and universities expanded to meet these practical needs, however, many critics arose to attack the universities for what they were doing. In general, the critics seemed to range themselves into two opposing groups, which for the lack of better terms have been called the conservatives and the progressives.

The conservatives, who formed an unbroken link with the scholarly traditions of the past, wished to preserve as far as possible the traditional conception of a liberal education. They claimed that the universities had degenerated into mere "service stations" for all sorts of indus-

trial, commercial, and agricultural enterprises. They insisted that the university must return to its proper function of improving the "intellectual" quality of university training. On the other hand, the progressives said that modern society was so complex and changing so rapidly that the college must give the student an integrating and unifying experience in order to prepare him more directly for living in an interdependent society.

Although the elective system may have met definite needs in American life of the nineteenth century by adding technical and "hand-minded" subjects to the curriculum, it now appeared that it had become encumbered with almost meaningless requirements as to hours, credits, prerequisites, and degrees. Since the highly specialized and unrelated subjects of the elective system did not give the needed integration to students, the progressive educators felt that new courses and new colleges should be devised which would attempt to do so. It thus seemed that the rule of the elective system was not to go unchallenged.

Both the conservatives and the progressives agreed that the free elective system as it had developed with highly specialized courses of narrow subject matter was educationally bad, but they differed in their proposals for reform. Both conservatives and progressives were suggesting more prescription, but they differed radically concerning the kinds of studies that they would prescribe. They both agreed that the common elements in education and life should receive greater emphasis in the prescribed studies, but they differed as to what those common qualities were. They both favored greater integration and correlation of knowledge, but they differed as to how these could be achieved and what studies best showed the interrelationships of knowledge. For example, the general-education movement, which proposed to provide greater integration through stressing common bodies of knowledge, ranged all the way from the conservative proposals of President Hutchins to the experimentalist proposals of progressive educators who took their cue from John Dewey's philosophy. Between these two extremes, the majority of college educators seemed to be trying to patch up the college curriculum with compromises between the principles of election and prescription, taking inspiration now from the conservatives and now from the progressives.

The principal efforts to reform the elective system have been of three general types: (1) attempts to shuffle course requirements; (2) efforts to give greater attention to individual students; (3) efforts to break down narrow subject-matter fields and to prescribe more material in larger and more interrelated fields of knowledge.

Administrative shuffling of course requirements. One of the earliest and ultimately the commonest methods of reforming the elective system

has been the administrative approach, according to which certain studies are prescribed and others are left to student choice. Most commonly this effort has accepted as valuable the customary type of subject-matter course dealing with a relatively narrow segment of knowledge, and it has retained the traditional reliance upon lectures, assignments, and recitation, or "quiz," sections.

Stemming from the efforts of President Lowell when he became president of Harvard in 1909, the principle of concentration and distribution struck a compromise between prescription and election. In this way, students were required to concentrate some courses in one field of knowledge and at the same time to distribute their other selections so that they would be somewhat acquainted with other important fields of knowledge. A variant of this administrative juggling was the method that required the student to take enough credits within one department to count as a "major" and then to take fewer credits in one or more other departments to make up a "minor" or "minors" in those fields.

Individualized instruction. A second kind of general approach that was intended to break the academic lockstep of credits and units involved special provisions by which each student would receive more individual attention to his interests and learning needs. Among the efforts to individualize college instruction were tutorial and preceptorial plans. At such colleges as Princeton, Harvard, and Vassar, students were assigned to tutors, or preceptors, whose function was to advise and help them with their classwork or in preparation for their final or comprehensive examinations. In this way, the individual abilities or disabilities of students might more easily be discovered and appropriate measures taken to give them special work better adapted to their own peculiar needs than would be possible in large lecture or recitation classes.

Another form of individualized instruction was embodied in the honors plan (customarily identified with Swarthmore) and the independent-study plan (Leland Stanford). In both cases, the main intention was to give the more able students a chance to branch out for themselves and to proceed more rapidly than the speed of the average classes would allow. In conjunction with a faculty member, the student was directed to an individual plan of study, which he followed independently, without being held down by the usual requirements and class obligations.

Taking a cue from the honors plan of reading, some colleges have so arranged their programs that students may be relieved from class attendance during some parts of the year in order to concentrate for a period on reading and study uninterrupted by the necessities of class attendance. Other colleges have applied the technique of individual conferences or small discussion groups for use among all students rather

than for just a few. Informality became the keynote, and spirited discussions and group activities have had a better chance of flourishing than in the traditional stiff and formal atmosphere of the recitation room. The formal atmosphere of large classes has also been dissipated by some colleges through their emphasis upon such field activities as excursions into the surrounding community, a year of study abroad and other traveling plans, and periods of work or study in community activities.

The most thoroughgoing efforts to individualize instruction were probably found in the few progressive colleges that consciously tried to begin with the student's own interests and to develop an appropriate course of study for him that grew out of his own experience and purposes. Thus, at Bennington, Sarah Lawrence, and Bard, students have had a great deal of freedom to work out their own programs of study along with their instructors and criticize their own efforts and activities in an effort to judge the value of their work for others and for themselves. Despite the great emphasis put by the progressive colleges upon individual interests, there was evident a growing tendency to see that the student's interests not only served as a starting point for the experience curriculum but also that they revealed to him the ever-widening implications of his activity for social welfare.

Greater prescription. The third method of reforming the elective system was the formation of several kinds of new prescribed courses, designed to break down the customary narrow divisions of subject matter, to provide a more integrated approach to knowledge and society, and to afford students the common funds of knowledge necessary to intelligent activity in modern society.

Some colleges abolished the narrow departments and created in their place a relatively few broad divisions that offered fewer and broader courses of study. Typical broad fields were the social sciences, natural sciences, languages and literature, philosophy and religion, and fine arts. Students were then required to become reasonably proficient in each of these major areas. In this way, the former sharp lines between departments were eradicated, and the divisions sometimes tried to meet the needs not only of students who planned to be specialists in that field but also of those who were just exploring or who had decided to specialize in other fields. The Harvard report of 1945 signalized the effort of Harvard to move in this direction away from the elective system.

One of the most popular methods for achieving a greater degree of prescription in the college curriculum has been the survey course. Survey courses have been framed with many different purposes in view and with many different names attached to them. The last 20 years saw a great mushroom growth of "orientation courses," "correlated courses,"

"coordinated courses," "integrated courses," and "cooperating courses." Some have aimed at giving freshmen an orientation into college study or into the various fields of knowledge. Some have aimed at giving a bird's-eye view for all beginners in any particular field. Some have been devised particularly as an introduction to a field for students who will never take more work in that field. And some have been required as a first course for all who intend to specialize further in that field. Frequently, all these aims have been combined, and a single course has borne the burden of achieving these different aims for different students.

A less popular but perhaps more effective technique for reforming the elective system has been the centering of study in a whole culture epoch, or civilization. As a whole people was viewed in its efforts to solve its major problems of political and social control, industry, science, wealth, war, unemployment, leisure, and fundamental world view, the student had a good chance to integrate his knowledge and to focus it upon social action. Perhaps the best example of this approach was the Experimental College headed by Alexander Meiklejohn at the University of Wisconsin from 1927 to 1932. Other techniques have involved the study of pressing personal needs that face the individual, such as physical health, sex, marriage and home relationships, vocation, leisure, social and civic relationships, and religious attitudes. A final approach to the problem of prescription has been made, particularly by St. John's College, by centering the curriculum in the required reading of specified "great" books.

Whatever the name given to such revisions or reforms and whatever the specific aims and details with which they were worked out, at least two aims commonly stood out in the more progressive of these experimental colleges and courses. One was to give more attention to the needs of the individual student and greater meaning to his college study than was possible in the large impersonal courses and lectures of the elective system. The second was to relate college study more closely to the needs of present-day society and to give students a more integrated approach to their study of and participation in modern life than was given by the elective system. Hence, the prescribed courses came back into favor as the colleges tried to make certain that all students would gain a more common understanding of the problems of man, society, and the world at large.

As the colleges and universities of the United States turned from their war experiences to plan their programs for the coming years, they took stock of what the war had meant to them. If they were wise, they realized that the emergency demands for vocational, technical, and scientific training reflected not only the needs of a nation at war but the needs of an industrial nation in peace. They realized that they could not maintain the old snobbery concerning "practical education" and that

both "cultural" and "practical" aims must be synthesized into a new outlook appropriate to modern life. They realized, on the other hand, that no amount of intellectual or cultural or vocational training would be desirable if their whole program was not oriented around the goal of social responsibility for achieving and maintaining a democratic society in the United States and in the world.

The college experience must be such that after college days the young people of the United States would know how to live democratically in an interdependent world and would strive earnestly to work for and create a truly democratic society in that world. There will be little profit to the United States or to the world if we train vast numbers of professional workers, engineers, technical experts, and teachers who have not a deep-seated desire and ability to make their skills contribute to the creation and maintenance of a democratic society. To give them professional and vocational competence together with a sense of social responsibility for democracy is the ultimate goal of all education in the United States.

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